9392

E.1 1912 – 1913

PUNJAB ADMINISTRATION REPORT

1912-1913

WEST PAKISTAN SECRETARIAT
LIBRARY COPY
(To be returned to the Library when done with)

E-1
912-13

E. 1
1912-13

PUNJAB ADMINISTRATION REPORT,
1912-1913.

Agents for the sale of Punjab Government Publications.

IN LONDON.

CONSTABLE & Co., 10, Orange Street, Leicester Square, W. C.

GRINDLAY & Co., 54, Parliament Street, S. W.

HENRY S. KING & Co., 65, Cornhill, E. C.

P. S. KING & SON, 2 and 4, Great Smith Street, Westminster, S. W.

KEGAN PAUL, TRENCH, TRÜBNER & Co., 68-74, Carter Lane, E. C.

B. QUARITCH, 11, Grafton Street, New Bond Street, W.

W. THACKER & Co., 2, Creed Lane, London, E. C.

LUZAC & Co., 46, Great Russell Street, London, W. C.

OLIVER & BOYD, Tweeddale Court, Edinburgh.

E. PONSONBY, Limited, 116, Crafton Street, Dublin.

MR. T. FISHER UNWIN, 1, Adelphi Terrace, London, W. C.

ON THE CONTINENT.

FRIEDLANDER & SOHN, 11, Carlstrasse, Berlin.

OTTO HARRASSOWITZ, Leipzig.

KARL W. HIERSEMANN, Leipzig.

ERNEST LEROUX, 28, Rue Bonaparte, Paris.

MARTINUS NIJHOFF, The Hague.

IN INDIA.

THACKER, SPINK & Co., Calcutta & Siml

NEWMAN & Co., Calcutta.

R. CAMBRAY & Co., Calcutta.

THACKER & Co., Bombay.

HIGGINBOTHAM & Co., Madras.

T. FISHER UNWIN, Calcutta.

V. KALYANARAM IYER & Co., 18 Esplanade Row, Madras.

G. A. NATESAN & Co., Madras.

SUPERINTENDENT, AMERICAN BAPTI MISSION PRESS, Rangoon.

A. CHAND & Co., Imperial Book Dep Office, Delhi.

GULAB SINGH & SONS, Mufid-i-'Am Pres Lahore.

MANAGER, Punjab Law Book Depô Anárkali Bazar, Lahore.

S. MUMTAZ ALI & SON, Rafah-i-'A Press, Lahore [for Vernacul publications only].

MESSRS. RAMA KRISHNA AND SONS, Boo sellers and News Agents, Anárka Street, Lahore.

N. B. MATHUR, *Superintendent and Pr prietor, Nazair Kanun Hind Pre* Allahabad.

D. B. TARAPOREVALA SONS & Co., Bom bay.

REPORT

ON THE

ADMINISTRATION

OF THE

PUNJAB AND ITS DEPENDENCIES

FOR

1912-1913.

40

E 1
1912-13

LAHORE:
PRINTED AT THE PUNJAB GOVERNMENT PRESS,
MCMXIV.

PRINTED BY C. A. DISNEY,
OFFG. SUPERINTENDENT, GOVERNMENT PRINTING, PUNJAB, LAHORE.

CONTENTS.

PART I.

GENERAL SUMMARY.

PART II.

DEPARTMENTAL CHAPTERS.

CHAPTER I.—PHYSICAL AND POLITICAL GEOGRAPHY.

CHAPTER II.—ADMINISTRATION OF THE LAND.

CHAPTER III.—PROTECTION.

CHAPTER IV.—PRODUCTION AND DISTRIBUTION.

CHAPTER V.—REVENUE AND FINANCE.

CHAPTER VI.—VITAL STATISTICS AND MEDICAL SERVICE.

CHAPTER VII.—INSTRUCTION.

CHAPTER VIII.—ARCHÆOLOGY.

CHAPTER IX.—MISCELLANEOUS.

MAP AND DIAGRAM.

REPORT

ON THE

ADMINISTRATION

OF THE

PUNJAB AND ITS DEPENDENCIES

FOR

1912-13.

PART I.

GENERAL SUMMARY.

(The " year " throughout this report is not invariably the financial year ending 31st March 1913. At the heading of each chapter, with the exception of chapter I, a reference is given to the departmental reports which contain details of the subjects dealt with. The " year " of the present report is for each such subject the year mentioned in the title of the departmental report so referred to. In general it may be said that the " year " in chapters I, IV, V, VII, VIII and IX means the financial year ending 31st March 1913, in chapter II it is the revenue year ending 30th September 1912 and in chapters III and VI it is the calendar year ending 31st December 1912.

The Administration Report for 1911-12 was a decennial report, and as such contained many sections of permanent interest to which reference may be necessary in order to understand the working of the Administration; under the orders of the Government of India these sections are not repeated each year, but a reference is given to them in their place in the several chapters of part II of this report.

Except where otherwise stated, the Punjab in this report refers to the Punjab as at present constituted.)

Changes in the Administration.

Personnel.

1. There was no change in the Lieutenant-Governorship, Sir Louis Dane remaining the head of the province throughout the year. The scheme of District and Sessions Judges, noticed as proposed in last year's Administration Report, has been sanctioned since the close of the year and will be brought into effect in the spring of 1914. A separate Department of Fisheries was constituted in the autumn of 1912.

Territorial.

2. On the creation of the Delhi Province, the city of Delhi and its environs were excluded from the control of the Punjab Government, the Chief Court retaining jurisdiction. The remainder of the old Delhi District was absorbed into the neighbouring Punjab Districts, and the Commissioner transferred his head-quarters to Ambála.

Relations with Tributary States.

Principal events.

3. The Ruling Chiefs attended the Viceroy's public entry into Delhi in December 1912. The Maharaja of Nábha was installed by the Political Agent at Nábha, and Mian Jogindar Sen, a minor relative of the late Raja of Mandi, was seated on the *gaddi* by the Lieutenant-Governor at Mandi, the management of the State being temporarily left in the hands of the Wazir under the supervision of the British Settlement Officer. The settlement of Máler Kotla was completed, and an officer was lent by Government for a similar purpose in the Kalsia State.

Frontier Affairs.

Biluchistan.

4. The frontier was quiet. The Chief of the Mazari Tuman, the Hon'ble Nawab Sir Bahram Khan, was honoured with the title of K.C.I.E. in recognition of his conspicuous services.

Administration of the Land.

Land Revenue.

5. The kharif crop of 1911 was a poor one. Owing to early and late droughts, 31 per cent. failed of sowings that were 36 per cent. below normal. A bumper rabi followed, a record crop was harvested in the Ambála and Káwalpindi Divisions, and the extensive failure of the kharif was quite made up for, from the revenue point of view. The total matured area, however, fell short of the normal by two million acres.

The fixed land revenue of Rs. 213·7 lakhs was all collected except 2·8 per cent. (about Rs. 5 lakhs) left under suspension at the end of the year. In addition, Rs. 2·12 lakhs of last year's balances were collected, and the recoverable balance now stands at Rs 6·4 lakhs. The fluctuating land revenue rose to Rs. 87 lakhs, being 29 per cent. of the total demand, against last year's fraction of one-quarter. The increase of 16 lakhs is very largely due to re-assessments in the Canal Colonies. The sale of proprietary rights in the Lower Chenab Colony realised no less than Rs. 61 lakhs, under the head of "Other land revenue." The collection of land revenue proceeded smoothly: there was an appreciable diminution in the number of processes issued for compelling payment, and in some districts revenue was paid in while still under suspension.

The position of peasants.

6. The fact that the value of land and the position of the peasant continue to improve is illustrated in several ways by the returns of the year. The number of sales was greater than in any year since 1900-01, the area sold exceeded the quinquennial average by 13 per cent., and the price by Rs. 9 per cultivated acre: mortgage money rose from Rs. 101 per acre to Rs. 106, and mortgagees were found giving exceptionally favourable terms to mortgagors. The bulk of the transfers of rights in land were among the peasant proprietors themselves and the area of land held by the non-agricultural population diminished by 30,000 acres. There was a large decrease in the number of suits for ejectment of tenants and for enhancement of rent. The proportion of unsuccessful suits, too, was lower than in the preceding year, which is a satisfactory feature if it indicates a decrease in the volume of vexatious litigation. The relations between landlord

and tenant are satisfactory. There is a further increase this year in the number of owners and holdings, pointing to more extended sub-division of joint estates, which will perhaps result in more intensive cultivation. The wages survey conducted in December 1912 shows that the rates paid to all classes of labourers, including the ploughman and the unskilled country labourer, have increased since the preliminary survey of December 1909. The increase is widely spread and the substitution of cash wages for grain has advanced rapidly until now only four districts report grain wages: the farm-hand is now much more independent and partakes along with the landowner and tenant in the general agricultural prosperity.

The Canal Colonies.

7. In the Lower Chenab Colony there was an increase in cultivation, bringing the sown area up to 4 per cent. more than the area of irrigation allotted to the colony. This excess was balanced by remissions for failure of crop, the net result being that the colonists matured cent. per cent. of their allotted acreage. In the Jhelum Colony the sowings were 3 per cent. less than the allotted area, and 10 per cent. failed, so that though the result was good on the whole, there is room for improvement in water distribution, which is likely to be effected in the next few years. Fodder crops despatched by rail at reduced rates to districts which had suffered from the poorness of the kharif brought in large profits to the favoured tracts served by these two canals,—a fact which further illustrates the advantage provided by a liberal supply of canal water. The growing wealth of the canal colonists was displayed in the extensive purchases of proprietary rights and in the record entries of horses, mules and donkeys at the various fairs held during the year at Lyallpur, Háfizabad and other places.

The Colonization of Government Lands (Punjab) Act, 1912, became law on June 28th, 1912, and was well received: its effect will be judged next year. The new assessments mean an increase of 109 per cent. in the Gugera Branch, II Circle, and of 208 per cent. on the Lower Jhelum Canal. These increments which are tempered by the progressive system of enhancements bring into high relief the enormous advantage hitherto enjoyed by the colonists, in the shape of a practically nominal land revenue demand. The market towns are prospering, but not yet self-supporting, and further taxation of the grain merchants and middlemen would seem to be desirable as well as equitable.

Professional Surveys.

8. The riverain party of the Survey Department continued its useful work of assisting revenue surveys by laying down base lines of squares on the banks of the larger rivers and co-ordinating the cadastral surveys on opposite banks. Maps were also supplied to five Settlement Officers. The rectangular surveys of the areas commanded by the Lower Bari Doab, the Upper Chenab and Upper Jhelum Canals were completed, and will be invaluable when the colonization of those tracts is commenced.

Revenue Surveys and Settlements.

9. Settlement operations were concluded in the Lower Chenab and Jhelum Colonies and in Kulu, Gurdáspur and Hissar. Seven other settlements were continued during the year, of which the Hoshiárpur and Ferozepore settlements were about half done and those of Amritsar and Gujránwála nearly completed. New settlements were begun in Lahore and Gujrat: that of Jullundur was sanctioned to commence in the cold weather of 1913-14.

Land Records.

10. The system aimed at by Colonel Wace some 30 years ago of revising the maps and records of districts before re-assessment has been tried in three districts, with the object of shortening the duration and cost of settlements and at the same time of improving the accuracy of the records. The experiment has not been altogether satisfactory. On the other hand, the association of the Director of Land Records with the revision of maps and records of districts under the settlement has had excellent results, and still further improvement may be expected from the amalgamation of the district and settlement kanungo staffs.

LEGISLATION.

11. The constitution of the Council was altered during the year, three members elected by District Boards being substituted for three nominated members: there was a general renewal of nominated and elected seats. Six Acts of the local legislature became law, and twelve Acts of the Imperial Council more particularly affecting the province were passed. The local enactments include the Punjab Courts (Amending) Act, the Colonies Act, the Punjab Panchayat Act and others. The Imperial Acts dealt among other matters with Criminal Law Amendment, Official Trustees, Waqf Invalidation, and Companies.

POLICE.

12. The criminal statistics of last year, which caused the serious remarks in paragraph 20 of the Administration Report (Part I), were in 1912-13 exceeded by 13·5 per cent. Murders and dacoities increased by 8·4 and 15 per cent., respectively.

The total number of true cognizable cases dealt with by the police was over fifty thousand, and eliminating offences against religion, and public nuisances, the increase amounts to nearly 14 per cent. on last year's figures. It is true that more crime is now brought to light, since the improvements effected in the police force, but there has been a real increase in crime, especially serious crime. This is due partly to the growing spirit of disregard of authority, partly to the high standard of proof exacted in the law courts, and partly to the apathy or hostility of public opinion, especially in the tracts about Lahore and Ráwalpindi. Government is hopeful, however, that the wave of violent crime can be dealt with by special measures for strengthening the magistracy and police, increasing the efficiency of both these agencies, and by endeavouring to enlist the active co-operation of the community on the side of law and order.

There were some notable captures of armed murderers and dacoits during the year, and only two raids from across the frontier penetrated into Punjab Districts, while unarmed villagers on several occasions successfully resisted armed bands of dacoits, and were rewarded accordingly. This is the other side of the picture, and there are distinct signs of a leaven working within the Punjab which will in time, it is hoped, effect a radical change in the minds of the people. Efforts to restrain and reclaim the criminal tribes are proceeding *pari passu*. A satisfactory tendency of certain tribes to reform themselves is noticeable this year, and the success of the efforts of the Salvation Army is recognised in the Report on Criminal Tribes. A committee has been appointed with wide terms of reference to report on the whole question of the control and reformation

of these tribes. The present state of crime in the Punjab is undoubtedly serious, but the resources of Government under the present law have by no means been exhausted.

Criminal Justice.

13. The year was marked, as observed already, by an increase in all the more serious classes of crime and by the growing inadequacy of the criminal administration to cope with it. The figures of cases and persons brought to trial are 6 per cent. in excess of the record established in 1911. The growing contempt for law and order, side by side with the introduction of modern conditions of prosperity in the Punjab, has produced a state of affairs which calls for special efforts to deal with it. There is valuable property awaiting the burglar in most well-to-do houses, and the agriculturist has more time on his hands and more money to spend on drink and litigation The abnormally low proportion of the female population is also at the bottom of much of the violent crime of the Province. Government has signified its intention of considering proposals for the more general extension of the system of marriage registration which is established in some districts, and recognises that in cases of offences against the marriage laws the punishment of the guilty wife would be in accordance not only with the ideas of the people, but also with the views of a large number of officers responsible for the administration of the law. The prevention of the frequent abuse of section, 107 of the Criminal Procedure Code is also engaging the attention of the authorities.

At the same time the subordinate Magistracy is inclined to insist on too high a standard of proof and to allow criminal cases to be prolonged and witnesses discouraged by unnecessary adjournments. The Lieutenant-Governor has remarked that while it is the duty of the Magistrate to see that the person accused of crime gets justice and fair play, it is also his duty to society and to the administration to see that crime and criminals do not go unpunished. At present 22 per cent. only of the persons brought into court are convicted.

The disposal of criminal cases during the year was nearly 8,000 in excess of last year's total. Towards this result the Honorary Magistrates rendered valuable assistance and Sessions Judges did good service in disposing of a largely increased number of cases. But District Magistrates failed as in previous years to try a sufficient number of cases in the exercise of their enhanced powers under section 30 of the Code of Criminal Procedure, and His Honour has reminded them that the preservation of law and order is their first duty. The number of criminal appeals and revisions pending in the Chief Court was higher than it had been for some years past: and there is a steadily increasing delay in the disposal of appeals by Government. The number of murder references dealt with was, however, as high as 133, and it is hoped that the confirmation of the death sentences in a larger proportion of cases than in 1910 and 1911 will have some effect in checking the increase of this form of crime. It is recognised by Government that the diet money allowed to witnesses is, in present conditions, inadequate, and the question is receiving consideration.

Prisons.

14. The policy of concentration was continued and the District Jail at Lahore was constituted a first class Central Jail (the Borstal Central Jail),

two other District Jails being converted into subsidiaries: three other subsidiary jails are being built. The accommodation is still insufficient for the proper classification of prisoners and the segregation of long-term convicts, and over-crowding of jail sites occurred at fourteen places, but room for 1,240 more prisoners will be available shortly and the results will be watched. Two camps were formed at Dera Gházi Khan and Multán.

Discipline was well maintained, and though there were nine escapes, there were also nine re-captures. There was a marked decrease in the number of punishments of prisoners, and the convict officers behaved extremely well: stipends for these have been sanctioned, and the policy of humane treatment of prisoners generally is having excellent results. The jail staff are well managed and worked with a will.

As regards the non-penal aspects of the treatment of prisoners, a most interesting description is given in the Report on the Administration of the Jails of the way in which all the forces of reclamation, physical, mental, moral, and religious, are brought to bear on youthful convicts. There are some signs that the great religious communities of the Province are awakening to a consciousness of their opportunities of co-operation in this great work. Moreover, a purely indigenous Temperance Society has been formed at Amritsar, and the committee proposes to send emissaries to Lahore to work among the inmates of the Borstal Jail. A large share of the credit for rousing public interest in the work of prison reform belongs to the Salvation Army, and a system has been introduced for the transfer of prisoners with their consent, from the Borstal Central Jail to the Danepur Settlement at Lahore. A *maulvi* and a *pandit* have also been appointed to minister to the Muhammadan and Hindu prisoners there, and the results of the whole scheme so far have been entirely good.

The disquieting features of the report are the rise in the number of admissions and the increase in the number of those released on appeal. The number of admissions is the highest since 1903, and is of course the direct outcome of the increase in crime which has been described above.

The year was a healthy one, and the death rate fell to 18·88. In order to deal with tubercle in prisons certain measures have been approved, including the provision of a special jail for tubercular patients.

Civil Justice.

15. The decrease in civil litigation noticed last year has proved to be merely a temporary lull, and the figures of institutions this year show a rise of 9·6 per cent., in spite of the exclusion of Delhi. The increase is common to almost all districts. Suits for money or movable property rose by 9 per cent. and suits for title and other suits by 13 per cent. Nearly half the suits instituted were below Rs. 50 in value, and it is hoped that much relief to the courts will be afforded when the Civil Panchayats Act comes into full working: it is being introduced tentatively in selected districts.

The abuse of the Insolvency Act was noticed two years ago, and is especially apparent in the year under report, during which 286 petitions were presented in Lyallpur and Jhang alone, against 110 in those districts last year, in spite of a favourable agricultural year. The Judges have been asked to institute enquiries with a view to checking any abuses of the Act that may be established.

The administration of the Guardian and Wards Act is not altogether satisfactory, and the courts take on themselves a great deal of unnecessary work. It is hoped that the enquiries now being made by the Judges will result in a considerable reduction in the amount of work under the Act.

The number of officers employed on civil judicial cases was less by 15 than in 1911, but the number of suits decided rose by 16,538, which is a very satisfactory result, particularly as many courts had heavier criminal work to dispose of. The average duration of suits, however, rose perceptibly. Appellate work was heavier in the Divisional Courts and the outturn larger than last year, while appeals decided by the Chief Court increased by 75 per cent

REGISTRATION.

16. The decrease in the number of compulsory registrations noticed last year was not continued, a rise of 13 per cent. making the figure higher than in any year since 1909. The increase is attributed to a year of agricultural prosperity and freedom from plague, with special causes prevailing in certain districts. The value of the property transferred increased by 24 per cent., owing to the steady rise in prices of immovable property.

LOCAL SELF-GOVERNMENT.

17. The working of the district boards again appears to be on the whole satisfactory, and there seems to be a growing tendency on the part of the members to interest themselves more than before in the duties of their position. It is but natural to expect that the interest which members show in the working of the boards should be largely influenced by the opportunities afforded of promoting schemes beneficial to the district as a whole or to the particular localities they represent. These opportunities depend mainly on the financial resources of the boards. As long as these resources merely sufficed for the maintenance of existing institutions and afforded no scope for a policy of improvement, a certain apathy on the part of the members was only natural. But the great expansion in the revenues of the boards within the last few years owing to the generous subventions from Government for the improvement of sanitation, education and communications, and the raising of the local rate in some districts and of the land-revenue on which it is calculated in others, has enabled nearly all the boards to embark on a progressive policy of development. The interest not only of the members but of the general public in the proceedings has consequently received a much needed stimulus, and there are many indications of the growth of that spirit of public interest and public duty which is the essential basis of all healthy local self-government. District Boards.

Serious efforts are being made to improve and exploit the valuable wayside groves and trees which are the property of the boards, and although failures occasionally occur and waste ensues, there is every reason to anticipate better returns from this source of revenue in the future.

The establishment of training classes and schools for teachers is being gradually developed in several districts, and nearly two lakhs of rupees were spent on education this year in excess of the outlay of last year.

Further assistance in the matter of road-maintenance is contemplated by Government, which during the year put six lakhs of rupees at the disposal of the boards for this purpose, and it is probable that many district boards will soon be able to entertain highly qualified Engineers.

Three members for the Local Legislature were elected by district boards during the year.

Municipalities.

18. The elections were briskly contested in the Gujrát District, and in Rohtak votes were undoubtedly bought and sold, but in most towns the candidate who thinks he is not likely to succeed retires before the actual polling commences, and the growth of interest in representative institutions is slow throughout most of the Province. The working of the various committees continues to be vigilantly watched, and was on the whole satisfactory.

There was a large rise in the income from octroi, owing to the overhauling of certain badly managed municipalities and the revision of the schedules of others. The cost of collection remains about the same, varying from four to twenty-two per cent. Three towns are taking steps to substitute a terminal tax for octroi, an experiment which, if successful, will prove a valuable object-lesson. The system of refunds is receiving special attention in several municipalities in which they form a high percentage of the octroi. The income from irrigation by sewage is rising in the larger towns and promises to become a considerable item in their revenues. Grants from Government increased very largely and were expended chiefly under the head of Public Health and Convenience.

AGRICULTURE.

Scientific.

19. A prominent feature of the year's work was the successful hibernation of the boll-worm parasite, which can now be distributed during the seasonal outbreaks of the pest. The cause of root-rot in cotton has also been traced to an insect. Experiments with wheat and cane were continued, and varieties of frost-resisting canes discovered The wheat survey was carried on in three districts. Some progress was made in bringing portions of the Western Punjab hills under olive cultivation, and the study and improvement of date-palms is proceeding on proper lines.

Co-operative Societies.

20. The co-operative movement continues steadily to expand and to flourish. There has been a further large increase in the number of agricultural co-operative societies and the capital controlled by them, the figures being 2,780 and Rs. 80 lakhs, respectively. At the same time the societies are shouldering more of the burden of inspection, and the cost of each society to Government has decreased. Five new central banks and three unions were opened during the year, and central banks started three years ago are already found paying 10 to 12 per cent. There is an element of potential weakness in the large amount of loan repayments which are overdue, amounting to 16 per cent. of the issues. The non-agricultural societies are not doing so well on the whole, though some are in a flourishing condition.

21. The addition of four to the number of Veterinary Hospitals and a twelve per cent. increase in the cases treated at those institutions mark the veterinary progress of the year. The experiment of taking fees for inoculations was unsuccessful and has been abandoned. The causes of contagious pneumonia among hill goats were investigated. Suggestions are made by the Superintendent for the control of the indiscriminate letting loose of Brahmini bulls, but the only practicable means of preventing deterioration of stock seems to be the increased provision by district boards of good bulls. Merino sheep breeding is beginning a promising career. The Army Remount Department report that all the fairs in the selected districts were successful, except one where shortage of fodder contracted entries. There were very large entries at all the Canal Colony fairs, and though the Mona stud has been abolished owing to lack of good country-bred mares, the success of horse-breeding in the Chenab Colony especially is established. Veterinary and Live-stock.

22. The Government Farm at Hissar suffered again from a partial failure of the monsoon and a consequent shortage of fodder. But the cattle were kept healthy, and a record number of bulls was issued to district boards. The poor seasons have had their effect on the calving, the number of calves born being lower than it has been for some years. The demand for Hissar cattle is increasing and the number of cows will have to be raised to meet it. The breeding of mules, donkeys and sheep was satisfactory. Hissar Farm.

WEATHER AND CROPS.

23. The total area sown during kharif 1912 was approximately normal, and owing to the late arrival and early cessation of the monsoon an unusually large proportion of the sowings were irrigated. The rain came in heavy bursts in July and August and benefited the sugarcane, but unirrigated crops suffered from the fitful character of the monsoon. Cotton was sown after late rains in April and on irrigated lands did well during the dry months, while the rain when it came was well-timed for washing boll-worm out of the plants. Sugarcane also benefited during the winter by absence of frost, and there would have been a bumper outturn of gur if scarcity had not necessitated the use of cane as fodder. The dry areas on the south-east and north-west suffered to some extent, and so did the south-western portions where inundation canals ran poorly: the net result was a failure of 24 per cent. of nearly normal sowings. The dry areas fared badly also in the *rabi* harvest, there being very little rain after September until the second half of February. The canals were worked to their fullest extent, and it was only the good rain in February and March which saved the *barani* areas. The proportion of the sown area irrigated was 42 per cent., of which nearly one-third was watered from wells and the bulk of the remainder by canals. Harvests of the year.

24. The prices of the most important crops rose even higher than last year: wheat averaged Rs. 3-1-0 per maund and cotton Rs. 7-15-0. Raw sugar, however, dropped seriously from Rs. 5-6-0 to Rs. 4-7-0 per maund. The prices of jowar and bajra fell, but maize, barley, gram and oil-seeds were steady. The year on the whole was a favourable one for the farmer, and, except in Jhelum and Ráwalpindi, stocks of grain were sufficient. Prices.

TRADE AND MANUFACTURES.

Internal Trade.

25. The figures for the triennium ending 1913 shew a substantial increase in the value of the total exports of 23 per cent. and of 17·6 per cent. in the value of the total imports for the three years as compared with the preceding triennium. Taking the average of the years in each case the increases amount to Rs. 535 lakhs and Rs. 441 lakhs, respectively, while if the year under report is compared with last year the rise in value was 16 per cent. in the case of exports and 5·8 per cent. in that of imports. Prices were approximately normal in the first year of the triennium ending 1913, except that cotton touched a record figure, and were high generally in the two succeeding years. Harvests were good except for the kharif 1911. Altogether the farmers prospered during the triennium under report.

Cotton goods and sugar still form the largest proportion of the imports, but coal and coke imports nearly doubled during the triennium, while a quantity of metal goods for building purposes came in for Delhi and the prosperous canal colonies. Nearly the whole of the imported treasure was in sovereigns, the increase for the triennium amounting to Rs. 489 lakhs out of a total of Rs. 1,000 lakhs of treasure imported, the remaining imports exceeding the exports by Rs. 331 lakhs for the triennium.

The most prominent feature of the exports is the sudden rise of the barley trade with the United Kingdom, the maundage of this grain rising from 14 lakhs in 1910-11 to 73 lakhs this year. The sudden demand was due to failure of barley harvests in other countries, and the windfall has benefited more particularly the Cis-Sutlej tract, where are situated the poor dry-area districts of the south-east, which are always the first to suffer from a weak monsoon. Probably for the first time since the canal colonies were fully developed, this tract exported more than the tract between the Sutlej and Jhelum.

Trans-Frontier Trade.

26. The figures for the triennium ending with the year under report show a decided increase both in exports and imports over those of the previous triennium, but the values are lower in each case than those of the three years 1904-07. Allowing for statistical changes and errors, there seems to have been a real rise in the three years ending 1913. The trade with Afghánistán fluctuates in a puzzling way which cannot always be explained by high or low prices in the Punjab. As regards Ladákh, the import of borax has declined and that of raw wool has increased, while *charas* has remained fairly steady in spite of the increased duty. Exports of Indian tea and cotton piece-goods have much improved. The same facts apply to the trade with Tibet, except that imported salt and exported silver have increased very considerably, and there is no trade in *charas* and very little in tea. It has been decided to retain for another year two trade posts experimentally established at Patseo and Sangla Dogris.

Industries.

27. The out-put of the coal mines increased by 25½ per cent. in spite of the closing down of one mine. The four Government salt mines also increased their production, which rose to 131,233 tons. The amount of petroleum extracted decreased while that of saltpetre considerably increased. The number of factories decreased owing to the non-working of 26 during the last two years, but the number at work increased by eleven. The rise of 4,681 in the number of operatives was divided nearly equally between

Government factories and cotton-ginning and pressing mills, which altogether employ 26,000 out of the 32,865 hands at work in Punjab factories. There were fewer inspections owing to the condemnation by the Factory Commission of amateur inspections, and the appointment of a whole-time Inspector should lead to a closer observance of the rules framed for the management of factories.

28. No less than 44 companies ceased working, more than half of which were of the dishonest type of provident societies which have been stopped by the new Act. The Criminal Investigation Department were actively engaged in prosecuting a Marriage Fund Society which had caused considerable distress in the Miánwáli District. The lack of business knowledge and methods in the Punjab generally is exemplified by the failure of 20 per cent. of the companies in existence in a year of agricultural prosperity, and public confidence in the management of such enterprises has been somewhat rudely shaken. Joint-Stock Companies.

FORESTS.

29. The classification of forest lands into "land under forest growth" and "waste land" was begun last year and corrected during the year under report: it is designed to show roughly which divisions are more valuable. The figures cannot yet be accurate, but taking them as roundly correct they show that it is not (at present) the better afforested areas that pay the most. The steep forest-clad Himalayas are very difficult to exploit, while the charcoal, firewood and grass of the Lahore Division find a ready market in the capital of the Province. Grazing fees are also comparatively easy to collect and pastures demand little outlay on management. The largest surplus is shewn by the Lahore Division ($1\frac{3}{4}$ lakhs) which has a comparatively small area, followed by Montgomery, where there is no forest growth at all, while Kulu, which has as much area fully afforested as the whole of Montgomery Division, besides twice as much waste, takes only a third place. The plantations in Montgomery and Multán are being sown and they will be easy to exploit and perfectly accessible. At present, however, there is a growing demand for coal fuel, and it is possible that the prices of wood fuel will fall too low for a sufficient profit on these plantations to be possible. The matter is receiving the closest attention. Trees and waste.

30. In Kángra proper, where the forests have suffered much from over-grazing, it has been decided to resort to more extended closures, and it is hoped that in this way it will be possible to effect improvement in those areas which have deteriorated as a result of the excessive exercise of the grazing and browsing rights of the people. Sanction has also been given to a three years' assessment of a tax on all animals grazing in the Kángra forests, levied under the provisions of the Land Revenue Act. Grazing.

PUBLIC WORKS.

31. In the past this Department has suffered from want of funds necessary to enable it to keep pace with the growing requirements of the Province, and the cost of establishment as compared with the total expenditure was consequently very high, averaging 30·95 % in 1909-10 and 30·12 % in 1910-11. Since 1911-12 the improvement of the Provincial finances has enabled Government to make larger allotments for Civil Works, and the establishment percentage has accordingly been reduced to 17·57 % in 1911-12 and

15·54 % in 1912-13 : at the same time it has not been found possible to utilize the increased grants in full owing to necessary schemes not being ready. This defect is now being steadily remedied, and a fairly complete programme is now being vigorously worked up to This year the Department spent nearly 80 lakhs as compared with 61½ lakhs last year, the principal feature being an increase of Rs. 13 lakhs debited to contribution works. Out of a grant of Rs. 78 lakhs for Provincial Civil Works, however, only Rs. 59·3 lakhs could be spent, the remaining Rs. 18·7 lakhs lapsing chiefly owing to delay in acquiring or selecting the sites of the works in question.

RAILWAYS.

32. The year was a prosperous one for the North-Western Railway which paid 5·77 per cent. on the capital outlay against 4·38 per cent. last year. The Lahore-Raewind section was doubled, the twenty-eight miles of the Jullundur Doab Railway were opened and the remodelling of the Lodhran station completed. The Beas Bridge was in progress.

IRRIGATION.

33. The area under the charge of the Department increased by some 60,000 acres. The principal feature of the year's report was, however, the working of the Upper Chenab Canal, the first link of the great Triple Project which will soon be in full operation. Irrigation from this canal was begun a year earlier than was originally estimated, and 116,162 acres were irrigated against a maximum of 40,000 acres estimated for the first year : in addition 30,525 acres were irrigated by escape water passed through the Deg Nullah, partly within the area of the Ravi Inundation Canals. The progress made on the Upper Jhelum Canal was also most satisfactory, and it is now expected that the second link in the Project will be in working order for the *rabi* of 1914-15. The Ravi too has proved much more amenable than was anticipated, and the Lower Bari Doab Canal was opened just after the close of the year under report. The older canals worked satisfactorily, and the work done at the Central Canal Workshops, Amritsar, was most useful. All the machinery for weirs and level crossings and minor canal necessities is being supplied from these works.

REVENUE AND EXPENDITURE.

34. The revenue raised in the Province amounted to Rs. 874 lakhs, an increase of Rs. 66·4 lakhs on that of last year. Detailed figures are given in Part II, paragraph 36. There was a remarkable rise of Rs. 56 lakhs in *Irrigation* receipts from major works, and consequently no assignment from Imperial Revenues was necessary in order to make up the net minimum income of Rs. 41 lakhs from Irrigation guaranteed to Provincial Revenues. Six lakhs of the increase were due to *Excise*, over 3½ lakhs to *Land Revenue*, and 2½ lakhs to *Stamps*. *Income-tax* produced an additional Rs. 68,000, and there was an enhancement of the same amount in the receipts from *Minor Irrigation Works*.

The total expenditure for the year amounted to Rs. 549 lakhs, which is more by Rs. 33 lakhs than that of last year. The chief increases were on account of *Education* Rs. 10·8 lakhs, *Major Irrigation Works* Rs 9½ lakhs, *Civil Works* Rs. 6 lakhs, and *Medical* Rs. 4½ lakhs. The cost of the *General Administration* decreased by over one lakh, and of *Minor Irrigation Works* by Rs 99,000.

VITAL STATISTICS.

35. The year like its predecessor was a healthy one: the incidence of plague and malaria was comparatively slight, though there was considerable mortality from small-pox in some places. The recovery of Amritsar from the terrible fever epidemic of 1908 is remarkable. The increased healthiness of the inhabitants of the Province generally is shewn in the rise of the birth-rate to 45·3 *per mille* and the decrease of the death-rate to 26·6 *per mille*, resulting in an excess of births over deaths of 18·7 *per mille*. Small-pox carried off 30,339 persons, chiefly infants, and as usual the towns to which the Vaccination Act is applied were less severely visited than those where vaccination is optional, the average figure for the former being 2·48 deaths *per mille* against 8 to 18 *per mille* in the case of the latter. The year showed a decrease of 163,000 in the number of deaths from plague. Deaths from fever were 1·11 *per mille* lower than in the previous year. The female infant mortality was again less than the male. **Public Health.**

MEDICAL RELIEF.

36. The number of dispensaries and hospitals in the Punjab increased slightly by 4 to 469, at which some 4½ millions of patients were treated, an increase of nearly half a million on last year's figures. The Government review of the medical report for the year points out some discrepancies which throw doubt on the statistics given in the report, and next year's figures will perhaps better show the real position. There has been an increase in the number of beds in hospitals and there is said to have been an increase of 10,000 in the number of in-patients. **Hospitals.**

37. Surgical operations increased by some 20,000, and the rise was common to major and minor operations alike. The percentages of success, also, show an increase. The already high proportion of cases of lens-extraction which resulted in good vision has risen still more, and now less than six persons out of every hundred treated for cataract in this way go home without good sight. The death-rate has decreased to ·22 per cent. and in cases of hernia and ovariotomy, though the operations themselves were three and four times more numerous than those of last year, the number of deaths has not increased. Similar success in a slightly less degree was attained in operations for stone. These very satisfactory results would have been impossible but for the large grants, aggregating 10·55 lakhs, provided by Government and local bodies. **Operations.**

SANITATION.

38. There is very little to record this year regarding the progress of sanitation in the Punjab, beyond the large increase in expenditure by municipalities and district boards. The whole policy of the Province is to be revised, and an important conference held after the close of the year recommended certain lines of action and guiding principles: an account of the resolutions passed and the action taken by Government thereon properly belongs to next year's administration report. **Sanitation.**

It is enough to mention here that the expenditure in municipal committees rose by 21 per cent. and in district boards by 40 per cent., and that there seems to be plenty of room still for improvement in municipal incomes from sale of street-sweepings and sewage-irrigation. The work of cleaning and fencing wells in villages resulted in figures that are nearly double those of last year, while the cost was less.

Arrangements made for the large fairs were adequate. Out of the lakh-and-a-half grant given by Government, the Sanitary Board were able to allot Rs. 1,10,664 to be spent on water-supply, drainage, &c., in various towns.

EDUCATION.

Progress in Education.

39. The year has been one of great progress in almost every branch of education. Large grants were made from Imperial and Provincial revenues, and are given in detail in Part II, section 54. There was an increase of 352 in the number of educational institutions and of 21,685 in that of pupils, figures which would be higher if those relating to Delhi and its environs were excluded from this and last year's totals. The percentage of children of school-going age who attended school has increased in the case of boys and girls alike. The recurring "Darbar" grant was utilised for raising salaries of teachers in primary schools and for vernacular school buildings. The system of basing grants on teacher's salaries was extended to municipalities. At the same time committees were relieved of the liability to pay grants for secondary departments of Anglo-Vernacular Schools. No less than 146 Primary Schools, 49 Middle Schools, 31 High Schools and 43 hostels were constructed during the year. The raising of fees has been of great assistance, especially in private secondary schools, the managers of which are now in a better position to enforce discipline. A general improvement is reported in the qualifications of teachers, and there is no longer a dearth of recruits for the training classes.

In the case of colleges, fees increased by $\frac{1}{4}$ of a lakh, and the examination results are better than before. Science teaching and hostel have received most of the grants this year. Buildings were acquired for the Law and Oriental Colleges and the University premises improved. Of the Professional Colleges, the Agricultural College is not at present proving a success, but the Veterinary College has done so well that the need of another such institution for Northern India is apparent. The Engineering College at Rasúl is supplying a long-felt want, while the Mayo School of Industrial Art is being extended, and classes have been opened in connection with schools of the general line.

Girls' schools have increased by over 11 per cent. and now number 745, at which 37,485 girls were taught. Training classes are provided by the Kinnaird High School, which has been affiliated to the University in Physics and Chemistry up to the Intermediate Standard. Kindergarten teaching is very much needed in the lower schools. Special efforts were made during the year to improve the buildings of girls' schools. The Queen Mary's College at Lahore was completed.

Good progress was made in schools for Europeans. Provincial funds were devoted to buildings and salaries, a special subsistence allowance being given to members of religious orders. The improvement of these schools is general and well-maintained.

The report of the Aitchison College shows an advance in attendance and in the results of the Diploma Examination. Defects in science teaching are being removed. The College won the Patiála Challenge Shield for the first time.

PART II.

CHAPTER I.

PHYSICAL AND POLITICAL GEOGRAPHY.

1.—Physical Features of the Country, Area, Climate and Chief Staples.

(See pages 1—16 of the report for the year 1911-12.)

2.—Historical Summary.

(See pages 16—30 of the report for the year 1911-12.)

3.—Form of Administration.

(See pages 30—48 of the report for the year 1911-12.)

4.—Character of Land Tenures and System of Survey and Settlements.

(See pages 48—58 of the report for the year 1911-12 and the Punjab Settlement Manual.)

5.—Civil Divisions of British Territory.

(See pages 59—62 of the report for the year 1911-12.)

6.—Details of the last Census—Tribes and Language.

(See pages 62—71 of the report for the year 1911-12.)

7.—Changes in the Administration.

1. Sir Louis William Dane, G.C.I.E., C.S.I., D.O.L., held charge of the office of Lieutenant-Governor throughout the year.

2. Owing to the separation of the Delhi Province from the Punjab and the transfer of parts of the old Delhi District to the Rohtak and Gurgaon Districts, it was decided to constitute the tahsils of Palwal and Ballabgarh in the Gurgaon District, and the tahsil of Sonepat in the Rohtak District into sub-divisions to be known as the Palwal and Sonepat sub-divisions, respectively. At the same time the head-quarters of the old Delhi Division were transferred to Ambála, which now gives its name to the Division.

8.—Relations with Tributary States and Frontier Affairs.

3. Last year's report should be referred to for information as to the last census and the Imperial Service Troops. The death of Major E. J. M. Molyneux, D.S.O., Inspecting Officer and Officiating Inspector-General, occurred suddenly at the close of the manœuvres and was a serious loss to the troops for whom he had done so much. General.

I.—Phulkian States and Bahawalpur.

PATIALA.

Area, 5,412 square miles; population (1911), 1,407,659; gross revenue, Rs. 86 lakhs; army and police, 5,297; Chief, Sir Bhupindra Singh, G.C.I.E., Sidhu Jat, aged 22; has a male heir; title, Maharaja; salute, 17 guns.

Nizamats.	*Area, square miles.*	*Population.*	*Tahsils.*
Rámgarh ...	1,835	425,324	Patiála, Bhawánigarh, Sunám, Narwána.
Pinjaur ...	825	183,314	Pinjaur, Rájpura, Banur, Ghanaur.
Amárgarh ...	855	265,138	Amargarh, Fatehgarh, Sáhibgarh (Pail).
Anáhadgarh...	1,836	379,971	Anáhadgarh, Bhikhi, Govindgarh.
Mohindargarh	576	153,912	Mohindargarh, Narnaul.

4. The Viceroy and Lady Hardinge visited the Maharaja at Chail in September 1912, and Sir Louis and Lady Dane paid a farewell visit at General.

Patiála in February 1913. A sum of Rs. 30,000 was offered by His Highness as a reward for information which would lead to the detection of the authors of the Delhi outrage. The question of an exchange of hill territory with the British Government is still pending.

The Maharaja's third marriage was celebrated at Patiála in October, and the birth of a son and heir, the Tikka Sahib, to the senior Maharani occurred at Patiála on the 7th January 1913. His Majesty the King Emperor telegraphed his congratulations to His Highness on the event.

Administration.

5. The various departments have maintained their efficiency, and there has been no change since the last report in the system of administration.

Finance.

6. The expenditure again exceeded receipts, but there is a large working balance in addition to the fixed reserve, while the actual receipts represent an increase of nearly 15 lakhs on the figure of the year in which the present Ministers took office. One lakh of the Government loan remains to be paid.

7. The revenue from the Irrigation Department reached the record figure of Rs. 23,32,882, while the Rájpura-Bhatinda Railway had a successful year, the Darbar's share representing a return of 13·24 per cent. on the capital. It is now proposed to construct a net-work of feeder lines in the State.

Agriculture.

8. The kharif harvest was above the average and the rabi crop normal. The land revenue was all collected save some 9 per cent., due to suspensions.

Schools.

9. The number of primary schools has been increased by 26, and there has also been a steady rise in attendance. The Mohindra College has made good progress, the grade pay of the masters has been raised and the M.A. class in Mathematics has been affiliated to the Panjab University.

Excise.

10. Boiling of opium before sale has been prohibited in deference to the wishes of Government. The excise income continues to increase.

Public Health.

11. The general health of the people was normal: births exceeded deaths by 11·77 *per mille* of the population. One of the principal public works was the completion of the Lord Hardinge Hospital at Dharampur.

BAHAWALPUR.

Area, 15,000 square miles; population (1911), 780,641; gross revenue, Rs. 39 lakhs; army and police, 1,897; Chief, Sadiq Muhammad Khan, Abbasi, V, Daudpotra, aged 8; title, Nawab; salute, 17 guns.

Nizamats.		*Area, square miles.*	*Population.*	*Tahsils.*
Minchinabad	...	3,528	217,897	Minchinabad, Nahr Sadikiya, Khairpur.
Baháwalpur	...	7,079	305,186	Baháwalpur, Ahmadpur, Allahabad.
Khanpur	...	5,311	257,558	Khanpur, Naushahra, Ahmadpur Lamma.

General.

12. The Nawab was at Gulmarg, Kashmír, in the charge of Major Mackenzie, I.M.S , from May to October, when he returned to Baháwalpur. At the wish of the Council of Regency, and with the approval of Government, the Nawab went to England with Mr. Atkins, Political Agent, and his family, with whom he had spent nearly two months in the State and in Patiála. The party sailed from Karáchi in March and His Highness will, it is understood, return in the next cold weather. He is expected to benefit both physically and mentally from his visit to Europe.

The Lieutenant-Governor spent a few days in the State in December.

Finance.

13. The Financial Member, Diwan Asa Nand, received the title of Diwan Bahadur. The Revenue Member, Mirza Sultan Ahmad, has nearly completed the term for which his services were lent to the State, and the question of its extension or of appointing a successor is now under consideration. The marked improvement in the revenue administration of the State is largely due to his efforts.

The expenditure fell some 15 lakhs short of the income and there is a large reserve in hand. The most salient feature in the year's administration was the introduction of the income-tax which was necessitated by the large canal schemes which have been undertaken.

The Canals and Agriculture.

14. The inundation canals ceased running earlier than usual, and the collection of revenue was not entirely satisfactory, a lakh of rupees outstanding at the close of the year. A new canal, 15 miles in length, has been completed. Lands on the Sadiqia Sharqia Canal were sold for about 9 lakhs of rupees. The Darbar is awaiting the decision of the Government of India upon the division of the water which will be available by the Sutlej Valley Canal Scheme. Mr. J. G. Davis, retired Superintending Engineer of the Punjab Irrigation Department, has been appointed to supervise the Canal Department and to further the Darbar's interest in the new Irrigation scheme. The Cholistan Colony is making satisfactory progress.

The earnings of the Khanpur Chachrán Railway have failed so far to realise expectations, the scheme of diverting river-borne traffic being an intricate one.

General Health.

15. Public health was good except for an epidemic of small-pox among young children, which was happily of short duration. Much has been done to encourage vaccination by Major Mackenzie whose departure will be a great loss to the Medical Department.

Boundary Dispute.

16. A commission has been appointed by the Government of India to decide the long standing question of the boundary between the State and the Sukkur District of Sind.

JIND.

Area, 1,259 square miles; population (1911), 271,728; gross revenue, Rs. 22 lakhs (including Rs. 3 lakhs extraordinary); army and police, 1,745; Chief, Sir Ranbir Singh, K.C.S.I., Sidhu Jat, aged 34; has no male heir; title, Maharaja; salute, 11 guns. The state is divided into the tahsils of Sangrúr, Jínd and Dádri.

General.

17. The Silver Jubilee of the Maharaja's succession to the *gaddi* was celebrated on February 27th, 1913, with festivities at which the Lieutenant-Governor was present. His Highness announced the grant of concessions and measures of reform, including the remission of half a lakh of various State demands.

His Highness the Maharaja attended the ceremonies connected with the State Entry of His Excellency the Viceroy into Delhi on December 23rd, 1912, and was present at a meeting of the Ruling Chiefs of the Punjab, convened to express their horror at the bomb outrage. A crowded meeting of all classes was held at Sangrúr with the same object, and Rs. 5,000 was subscribed by His Highness as a reward for information leading to the apprehension of the culprit.

Finance.

18. The year ended with a surplus balance of 3 lakhs, which was nearly all added to the reserve. The reserve, now 17¾ lakhs, will be used to finance the Jínd-Pánípat Railway. Practically all the land revenue demand was recovered. The Ludhiána-Dhuri-Jakhal Railway paid 7½ per cent.

The Jínd-Pánípat Scheme will, it is expected, be sanctioned shortly by the Government of India.

Canals.

19. The Darbar still hope that it will be found possible to irrigate the Dádri tract from the Western Jumna Canal. The Sirhind Canal irrigation was the most extensive yet recorded, while the Western Jumna also gave water to a greater area than last year.

Schools.

20. His Highness has founded a substantial scholarship to encourage higher education in Europe by State subjects.

Chapter I. PHYSICAL AND POLITICAL GEOGRAPHY.

Relations with other Governments.

21. The Darbar have co-operated willingly and effectively with the Punjab Government in the measures taken to put down smuggling over the border. At the same time the average duration of cases extradited to the State has been reduced from 64·88 days to 54.

NABHA.

Area, 928 square miles; population (1911), 248,887; gross revenue, Rs. 17 lakhs; army and police, 1,485; Chief, Ripudaman Singh, Sidhu Jat, aged 30; has no male heir, title, Maharaja; salute, 11 guns. The State is divided into the three nizamats of Amloh, Phúl and Báwal.

General.

22. The Maharaja was formally installed by the Political Agent in a Darbar held at Nábha on December 20th, 1912, on the expiry of the period of mourning observed for His late Highness.

A Council has been appointed to advise the Maharaja in judicial matters.

His Highness attended the ceremonies at Delhi connected with Viceroy's entry.

Agriculture.

23. Both crops were considerably below the average, owing to shortage of rain. The Sirhind Canal irrigated 44,419 acres in the two harvests.

II.—States of the Jullundur Division.

KAPURTHALA.

Area, 630 square miles; population (1911), 268,133; gross revenue, Rs. 31 lakhs; army and police, 1,341; Chief, Sir Jagatjit Singh, Bahadur, G.C.S.I., Ahlúwália, aged 40; has a male heir; title, Maharaja; salute, 11 guns; tribute, Rs. 1,31,000. The State is divided into the five tahsils of Kapúrthala, Dhilwan, Bholath, Phagwára and Sultánpur.

24. His Highness the Maharaja enjoyed good health throughout the year, and spent the summer months in Europe. He attended His Excellency the Viceroy's State Entry into Delhi on the 23rd December last.

Administration.

25. The State has been administered efficiently during the year under the supervision of Mr. L. French, I.C.S., who has rendered His Highness very valuable assistance. The services of Lala Salig Ram, a clerk in the Accountant-General's office, were lent to the Darbar for assisting in the re-organisation of the State system of finances and to act as Accountant-General.

Revenue.

26. The total income of the State was nearly Rs. 31,00,000 as against Rs. 25,00,000 in the previous year. No details explanatory of this large increase have been furnished by the Darbar.

MANDI.

Area, 1,200 square miles; population (1911), 181,110; gross revenue, Rs. 5 lakhs; army and police, 691; Chief, Mian Jogindar Sen, Rajput Mundal, minor; title, Raja; salute, 11 (eleven) guns; tribute, one lakh. The State is divided into the four tahsils of Nagar-Mandi, Chacheot, Gopálpur and Harabágh.

The new Raja.

27. The Government of India having decided the question of the succession to the *gaddi* of Mandi, Mian Jogindar Sen, a minor, was on the 28th April 1913 installed as Raja by His Honour the Lieutenant-Governor of the Punjab. Proposals regarding the administration of the State during the Raja's minority are under consideration.

Finance.

28. The management of the State during the year was in the charge of the Wazir, M. Amar Singh, under the supervision of Mr. Gordon Walker, I.C.S., who is conducting a revision of the land revenue assessment. The income of the State was Rs. 4,96,484-8-4 and the expenditure Rs. 4,82,351-14-5 during the year. These figures compare with Rs. 4,30,000 and 5,19,576, respectively, for the previous year.

The salt quarries were let out on contract. Salt to the value of Rs. 78,518-8-6 was sold, but this was not equal to the amount realised last year, *viz.*, Rs. 90,680-8-10. The State share was Rs. 66,886-2-6 and the British share Rs. 11,632-6-0.

The important question of the administration of the State forests was kept pending until the succession had been decided.

The marriage of the sister of the late Chief to Raja Gaggan Singh of Núrpur was celebrated during the year.

SUKET.

Area, 420 square miles; population (1911), 54,928; gross revenue, Rs. 2½ lakhs; army and police, 101; Chief, Bhuri Sen, Rajput, aged 28; has no male heir; title, Raja; salute, 11 guns; tribute, Rs. 11,000.

29. There is nothing of special note to record. The income and expenditure are both 25 per cent. higher than last year.

MALER KOTLA.

Area, 167 square miles; population (1911), 71,144; gross revenue, Rs. 12½ lakhs; army and police, 587; Chief, Ahmad Ali Khan, Bahadur, Pathan, aged 32; has a male heir; title, Nawab; salute, 11 guns.

30. His Highness suffered from malarial fever and spent some time by advice at Solon and Simla. He was present at Delhi at the State Entry of the Viceroy. General.

31. The income and expenditure are each some 50 per cent. higher than the figures of last year. The settlement was completed during the year, and the assessment appears to be sound. Certain economies are being effected and financial prospects in the State are better. Finance.

FARIDKOT.

Area, 642 square miles; population, 130,295; gross revenue, Rs. 10½ lakhs; army and police, 763; Chief, Brij Indar Singh, Barar Jat, aged 16; title, Raja; salute, 11 guns. The State is divided into the two tahsils of Farídkot and Kot Kapúra.

32. The administration has remained in the hands of a Council of Regency presided over by Sardar Dyal Singh, Man. The Raja studied at the Aitchison College during the year. His health has not been good, and he spent the summer at Kasauli. His younger brother unfortunately died at Lahore in December 1912. His sister was married in March to the Maharaja of Bharatpur.

The expenditure was some 2 lakhs less than the gross income.

III.—States of the Ambala Division.

SIRMUR (NAHAN).

Area, 1,198 square miles; population, 138,520; gross revenue, Rs. 6 lakhs; army and police, 628; Chief, Amar Prakash, Rajput, aged ~~24~~; has no male heir; title, Raja; salute, 11 guns. The State is divided into the four tahsils of Náhan, Pachhad, Ranika and Paonga.

33. Ceremonies of rejoicing in connection with the installation were held in March last at Náhan. It is hoped that the water-works scheme will be completed in due course. No import or export duty is levied in the State. General.

34. The Náhan-Jubbal boundary dispute is in process of being settled through the Commissioner of Ambála. Boundary dispute.

MINOR STATES.

State.	Area in square miles.	Population in 1911.	Gross revenue.	Chief.	Race.	Age.	Whether male heir or not.	Army and Police.
			Rs.					
Kalsia ...	168	55,915	2,37,283	Ravi Sher Singh ...	Sandhu Jat	10½	No	196
Pataudi ...	53	15,943	1,18,594	Muhammad Muzaffar Ali Khan.	Afghan ...	53	Yes	64
Lohéru ...	222	18,559	81,200	Amir-ud-din Ahmad Khan, K.C.I.E.	Mughal ...	53	Yes	60
Dujána ...	100	25,485	77,000	Muhammad Khurshaid Ali Khan.	Pathan ...	30	Yes	146

The Nawab of Lohâru has a personal salute of 9 guns. The Nawab of Dujána is under obligation to provide 50 horsemen on requirement.

35. *Kalsia.*—The young Sardar joined the Aitchison College, Lahore in November 1912. Settlement operations have commenced under an officer lent by Government.

Pataudi.—Khan Bahadur Mir Muhammad Nasir Ali Khan was appointed Adviser in place of M. Muhammad Husain.

Dujána.—The differences between the Chief, his sister and younger brother still exist.

Lohâru.—The son of the Chief carries on the financial administration.

IV.—State of the Lahore Division.

CHAMBA.

Area, 3,216 square miles; population, 135,989; gross revenue, Rs. 4 lakhs; army and police, 419; Chief, Sir Bhure Singh, K.C.S.I., aged 44, Rajput; has a male heir; title, Raja; salute, 11 guns; tribute, Rs. 3,800. The State is divided into the five Wazarats of Brahmaur, Chamba, Bhattiyat, Chaurah and Pangi.

General.

36. The Lieutenant-Governor visited Chamba in April. The Raja continues to administer the State in a very satisfactory way. The people are happy and contented, the hospital much appreciated, and the the troops well maintained.

Administration.

37. The Raja has accepted a revised draft of the regulations regarding the postal convention.

Mr. McIntosh, the Conservator, is preparing his final report on the *chil* forests in the Bhattis.

The revision of the tables in volume B of the Gazetteer is nearly completed.

The Raja has also recast the rules as to shooting, and pay of coolies, and has begun to promote fruit growing.

Boundary dispute.

38. The old boundary dispute with the Balun cantonment authorities was settled in the Raja's favour by a commission.

V.—*The Simla Hill States.*

The chief particulars of the Simla Hill States are given in the following table:—

No.	State.	Area in square miles including feudatories.	Population in 1911.	Revenue.	Tribute.	Name of Chief.	Race.	Age.	Title.	Whether male heir or not.	Military forces and police.
				Rs.	Rs.						
1	Bashahr	3,320	88,957	1,44,442	3,945	Shamsher Singh	Rajput ...	75	Raja ...	No	13
2	Bilāspur	448	93,107	3,33,425	8,000	Bijai Chand, C.S.I.	Do. ...	40	Raja ...	Yes	198
3	Keonthal	116	25,354	1,00,971	...	Bijai Sen	Do. ...	36	Raja ...	Yes	36
4	Jubbal	288	23,727	1,98,063	2,520	Bhagat Chand	Do. ...	24	Rana ...	Yes	19
5	Nalagarh	258	49,230	1,57,460	5,000	Jogindar Singh	Do. ...	43	Raja ...	No	88
6	Bāghal	124	26,008	63,976	3,600	Bikram Singh	Do. ...	20	Raja ...	Yes	25
7	Bhajji	96	14,972	33,504	1,440	Durga Singh	Do. ...	70	Rana ...	Yes	32
8	Kumhārsain	90	12,219	30,000	2,000	Hira Singh	Do. ...	71	Rana ...	Yes	7
9	Kunhiār	80	2,208	6,000	180	Hardeo Singh	Do. ...	15	Thakur ...	No	9
10	Taroch	67	4,493	5,000	288	Surat Singh	Do. ...	26	Thakur ...	Yes	...
11	Balsan	51	6,225	18,500	1,080	Bir Singh	Do. ...	49	Rana ...	No	...
12	Mailog	43	8,663	37,783	1,440	Durga Chand	Do. ...	15	Thakur ...	No	16
13	Baghat	36	8,797	50,000	Over 132	Durga Singh	Do. ...	11	Rana ...	No	43
14	Dhāmi	26	4,484	30,000	720	Hira Singh	Do. ...	36	Rana ...	Yes	25
15	Kuthār	20	4,016	17,000	1,000	Jagjit Singh	Do. ...	26	Rana ...	Yes	8
16	Sāngri	16	3,023	2,743	...	Hira Singh	Do. ...	62	Rai ...	Yes	...
17	Mangal	12	1,267	1,000	72	Tilok Singh	Do. ...	62	Rana ...	Yes	...
18	Dārkuti	8	521	8,700	...	Ram Saran Singh	Do. ...	70	Rana ...	Yes	...
19	Bija	4	1,064	8,496	124	Puran Chand	Do. ...	17	Thakur ...	No	8

39. *Bilâspur.*—The administration has been working smoothly with Mian Durga Singh as Wazir. The birth of a son and heir to the Raja was the occasion of much rejoicing.

Bashahr.—Every thing is going on satisfactorily under Mr. Emerson's management. The settlement of the Rohru tahsil was taken in hand this year. The Assistant Manager is retiring.

Nalagarh.—Stringent economies have been introduced, and it is hoped that the stone quarries which have been leased by the Public Works Department will yield a handsome revenue.

Keonthal.—The settlement is progressing favourably after some initial opposition.

Jubbal.—The management of the State forests has been particularly satisfactory.

Bhajji.—Tikka Praja Lal, heir-presumptive, died during the year.

Kumhársain.—During the year the Tikka Sahib has been receiving instructions in administration and has been empowered to take up petty criminal, civil and revenue suits. In January he was married to a daughter of the Rana of Bhajji. Numerous complaints have been received against the Manager, Sukh Chain Singh, but on investigation no grounds for considering the complaints true have been discovered.

Dhámi.—The Rana of Dhámi received the Order of C. I. E. in recognition of the able manner in which his State is administered.

40. A list of the feudatories of three of the above States was given in last year's administration report, and no changes are reported this year.

FRONTIER AFFAIRS.

41. The peace of the border remained undisturbed during the year. The hills suffered from want of rain and the effects of scarcity. In consequence the number of criminal cases and the value of stolen property reported to the Border Military Police increased, while the recoveries were not so large as previously. There were fewer civil suits, but more criminal cases relating to women. The jirgas, however, worked well and promptly disposed of the cases instituted. The joint jirga of Dera Gházi Khan and Bilúchistán chiefs did valuable service in disposing of 75 cases in which parties belonging to both administrations were concerned. The principal of these was a serious dispute between the Marris on the one hand and the Gurchanis and Bozdars on the other. The Tumandars continued to manage their tribes satisfactorily, and Nawab Sir Bahram Khan, the Chief of the Mazari Tuman, was honoured with the title of K.C.I.E. in recognition of his conspicuous services. The powers of a Magistrate of the 3rd class were conferred upon Sardar Jamal Khan, the Chief of the Leghari tribe, but the management of his Tuman has not yet been entrusted to him and is still in the hands of Khan Bahadur Sardar Din Muhammad.

9.—Condition of the people.

[For information regarding this section *vide*—

Administration Report for the year, 1911-12, paragraph 249.

Moral and Material Progress Report for the years 1901-02 to 1911-12.

Chapter VI below.]

Wages.

42. The first regular survey of wages was held in December 1912 and the statistics are compared in the report with those furnished by the preliminary survey of December 1909. The harvests of 1912 were a good rabi and a nearly average kharif, so that the figures obtained are normal. The towns selected were Lahore, Amritsar and (failing Delhi) Multán: the villages numbered 1,666, four being taken from each kanungo's circle, and returns were received from 97 per cent. of these, the remainder being permanently

or temporarily unsuitable, except eleven, the omission of which has not been explained: measures are being taken to fill up this lack of 3 per cent., which is not large enough to affect the general conclusions arrived at in the report.

Urban areas.

43. The rates now reported for urban areas as compared with those of 1909 show an increase in all classes except that of brass, copper and bell-metal workers, in whose case the decrease is due to a falling-off in demand or to incorrect figures given in the preliminary survey. As is to be expected, the wages paid to unskilled labourers, carpenters, and masons in urban areas are much higher than those paid in the country, except in Lahore where the urban rates are very little higher than the rural, and (excluding unskilled labourers) are surprisingly lower than those in Multán.

Rural areas.

44. The cash rates for rural areas have risen generally: the returns give the range of typical rates and also the most common rate: two figures are frequently given as most commonly paid, and in the comparative table below the higher of such two has been selected in all cases for unskilled labour: the second and third columns show the number of districts where the rates prevailed at each survey :—

Rate per diem for unskilled labour.	1909. Districts.	1912. Districts.
Below 5 annas	12	3
5 annas (or fraction)	3	7
Above 5 annas	12	17

In Hissar the typical cash rates were high in 1909 owing to a bumper kharif in that year and have decreased slightly: in Gurgaon the old customary rate of two annas per diem is still the most common wage. In Ludhiána the rise has been very sharp, but in Ferozepore the influx of labourers from Rájputána in 1911 and 1912 seems to have reduced the rates which were previously high. In Lyallpur the unskilled labour market appears to be glutted at last and wages are stationary. Grain wages are given less frequently than before: they were reported by fifteen districts in 1909 and by four only in 1912: the percentages of villages reporting cash and grain wages for unskilled labour are :—

	Purely cash.	Cash with grain or other supplement.	Purely grain.
1909	49	48	3
1912	58	40	2

The wages of village artisans are reported from 89 per cent. of the selected villages in the case of carpenters, 19 per cent. in that of blacksmiths, and 75 per cent. for masons. Blacksmiths generally get a share of the produce, and if they take non-agricultural work, are paid by the job: being reported from so few villages, the returns in their

case cannot be considered representative. In the case of carpenters and masons the same rise is apparent as in the wages of other classes of labour. Ploughmen are paid monthly wages in about 68 per cent. of the selected villages. Elsewhere they are paid a share of the harvest produce. Their cash wages have risen in the same way as those of other labourers, and the rates do not include the value of perquisites at harvest time when the ploughman turns reaper.

General.

45. Prices are still at a high level, and the demand for labour has increased partly owing to the depletion of the ranks of unskilled labour by the ravages of plague, and partly to the industrial development of the Punjab. The results of comparing the districts of the Ambála Division with those across the Provincial border show that the Punjab rates are in all cases somewhat higher, but the correspondence is fairly close. The United Provinces rates for unskilled labour (August 1911), especially in the north-west, were rendered abnormally low by the partial failure of the autumn harvest of 1911. Outside the Ambála Division, and especially in the Central Punjab, the rates for all classes of labour are very much higher than in the United Provinces.

CHAPTER II.

ADMINISTRATION OF THE LAND.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Realisation of the Revenue.— / *Revenue Surveys and Settlements.*— Report on the Land Revenue Administration of the Punjab for the agricultural year 1st October 1911 to 30th September 1912.

Professional Surveys.—General Report on the Operations of the Survey of India for the year ending 30th September 1912.

Land Records.—Report on the Operations of the Department of Land Records, Punjab, for the year ending 30th September 1912.

Waste Lands and Government Estates.—
1. Annual Report for the Chenab, Jhelum and Chunián Colonies for the year ending 30th September 1912.
2. Land Revenue Report, *as above.*

Wards' Estates.—Report on the Administration of Estates under the Court of Wards in the Punjab for the year ending 30th September 1912.

Revenue and rent-paying classes.—Land Revenue Report, *as above.*

PUBLICATION OF THE GOVERNMENT OF INDIA.

Agricultural Statistics of India, Volume I—

Area Totals—Table 1 J.
Classification of Area—Table 2 I.
Incidence of Land Revenue—Table 5 I.
Transfers of Land—Table 6 H.
Changes in Boundaries—Appendix B.

10.—Realization of the Revenue.

FIXED LAND REVENUE.

46. The fixed land revenue demand of the Province stood at Rs. 2,13,73,969, an increase of Rs. 47,616 only over last year's figures. Increases due to re-assessment occurred in Hissar and Ludhiána, partly counterbalanced in Hissar by the substitution of a fluctuating assessment in parts of the Fatahabad tahsil. Other additions and deductions were normal. Of the current demand, 97·2 per cent. was recovered, a remarkable result considering the extensive failure of the kharif, and due to the balance being redressed by a bumper rabi. The outstanding balance of the current demand is Rs. 5,95,391, of which Rs. 5,10,856 are under suspension and Rs. 5,465 recoverable arrears not under suspension. The irrecoverable balance is Rs. 77,919, of which Rs. 21,274 were remitted on account of calamities of season. Demand and collections.

At the close of last year the outstanding balance was Rs. 5,79,430, of which Rs. 3,86,345 were classed as recoverable and Rs. 1,93,085 as undetermined or irrecoverable. Of these sums, in the year under report, Rs. 1,80,353 were struck off, while Rs. 2,12,050 were recovered, and Rs. 1,90,206 remain as balance. The increase in the balance of Rs. 3,179 is due to refunds.

Collections of the current demand were over 90 per cent. in all districts, except Jhelum and Shahpur. This high percentage of collections is due, as observed above, to the splendid rabi of 1913, which enabled district officers to collect a large proportion of the revenue suspended in the kharif. The suspensions of that harvest amounted to 13¾ lakhs (principally in the Delhi and Ráwalpindi divisions and in the Gurdáspur, Siálkot and Gujránwála districts of Lahore), and the suspended revenue which was collected in the rabi was

upwards of 10½ lakhs. There is reason to suppose that the tendency in allowing suspensions was to err on the side of liberality, for a scrutiny of the monthly collection statements sometimes brought to light payments considerably in excess of the demand as reduced in consequence of suspensions. In the Ráwalpindi division, for instance, revenue-payers had paid in by the end of July half a lakh more than they were required to pay, *i.e.*, about 30 per cent. of their arrears.

River action.

47. Owing to the scanty monsoon, there were fewer large floods than usual, and consequently fewer changes in the course of the big rivers. Last year 43,376 acres were removed from assessment owing to river action. This year the figure is 29,648 acres only, which corresponds almost exactly with the area newly assessed owing to alluvion during the year. The nett decrease in the fixed land revenue demand from this cause is Rs. 12,442 only.

The big rivers are again responsible for nearly all the changes, the action of chos and minor streams being comparatively unimportant. The largest loss of revenue, Rs. 5,759, is reported from Lahore, and is due entirely to the action of the Ravi. Nett increases of assessment are shewn by Gurgaon, Delhi, Jullundur, Siálkot, Gujránwála, Attock and Dera Gházi Khan.

Fluctuating Land Revenue.

Demand and collections.

48. The amount of land revenue temporarily off the fixed land revenue roll was Rs. 92,000, of which Rs. 42,000 is due to the revision of assessment in Gurdáspur. The amount of land revenue permanently off the fixed land revenue roll rose from 71 lakhs to 87 lakhs. The important increases are entirely due to re-assessment in the canal colonies, Lyallpur showing an increase of 10 lakhs, Shahpur 6 lakhs, and Jhang 1 lakh. Land revenue assessed by the Deputy Commissioner on canal-irrigated land shows decreases of Rs. 73,000 in Multán and of Rs. 12,000 in Dera Gházi Khan. In Multán the canals began to flow late and closed early. The largest decrease of irrigation is on the Lower Sutlej Series.

Supervision of demands.

49. The special examination into the general working of fluctuating assessments shows that in five districts the Settlement Officer's estimate is only now being reached, the average collections since settlement having been in all cases below it, while in two districts, Montgomery and Hissar, the estimate is still far from being attained. The latter remarkable divergences from the estimates have hardly been accounted for. In Miánwáli too the very lenient assessment imposed by Mr. Thorburn 40 years ago has not been reached by the average fluctuating assessments, though prices have risen enormously. On the whole, the results are now not unsatisfactory, and the special attention directed to the matter has shewn that these assessments require most careful watching by Collectors if Government is not to be defrauded by collusion between the subordinate revenue staff and the cultivators.

Other Land Revenue.

Demand and collections.

50. The demand which stood last year at less than 25 lakhs rose in the year under report to nearly 70 lakhs, of which 69 were collected. This enormous increase is due to the sale of proprietary rights in the Chenab colony, from which a sum of 61 lakhs was realised. There is a large uncollected balance in Delhi (Rs. 43,000), due to the failure of certain purchasers of Government land to fulfil their engagements. The large balance in Shahpur is due, as before, to the Jalpana Estate. The largest decrease is under the head "Sale of town-sites," whose receipts fell from Rs. 3,20,000 to *nil*, owing to the completion of the various colony towns. Recovery of cost of assessment from assignees fell from nearly one lakh to practically nothing. Receipts from *tirni* show a falling-off of Rs. 9,000, mainly in Montgomery, where the failure of the winter rains produced a grass famine.

MISCELLANEOUS.

Processes for the collection of land revenue.

51. Coercive processes against lambardars issued in 3,386 cases as against 4,683 last year. The amount of land revenue involved was over 8 lakhs of rupees, of which 97 per cent. was recovered. Coercive processes issued at the request of lambardars were 8,176 as against 9,589 last year. The amount involved was 2 lakhs, of which 81 per cent. was recovered. The decrease in the number of processes issued is considerable and satisfactory. Stringent measures against lambardars were found necessary in two cases in the Western Punjab, and elsewhere the policy of confiscating *pachotra* is producing a marked improvement in the punctuality of payments; but it is generally found that the issue of a warrant is sufficient to ensure payment without its execution. In Kángra the number of non-residents and in Lahore the general lawlessness of the Manjha are given as reasons for unpunctual payments to lambardars. Lambardars appear to be backward in their payments in Gujrát, Karnál, Miánwáli and Ludhiána, while they themselves are most in need of Government aid in Amritsar, Gurdáspur, Muzaffargarh, Kángra, Lahore and Miánwáli.

As usual, the processes issued were served by the tahsil chaprasis in most districts. Special establishment was, however, employed for short periods in 13 districts. The receipts from *talbana* amounted to Rs. 20,326 as against Rs. 18,48; in the previous year.

Payment of revenue through the post office.

52. Revenue-payers are rapidly appreciating the system of remitting their land revenue by money order, the amount so paid in having increased by 5½ lakhs. In view of the growth of the popularity of the system and the undoubted convenience which results to the revenue-payer, His Honour does not consider that it is necessary to attempt to obtain any reduction in the money-order fee. The system adopted in Jullundur and Ludhiána of requiring lambardars to pay their instalments in batches is convenient to the tahsil officials, but it is doubtful whether it can ever be successfully enforced, as it entails extra journeys to the tahsils for the lambardars who pay in their revenue personally.

The use of currency notes for remittance of land revenue continues in Lyallpur and Gujránwála, and has been sanctioned tentatively in Rohtak, but it gathers little favour.

11.—Professional Surveys.

Riverain party.

53. The riverain detachment of the Survey Department continued its work of laying down base lines and traversing. Squares were marked out for riverain boundaries on both banks of the Sutlej and Jhelum, and traversing was carried out for cadastral surveys on the Sutlej, Ravi, Chenab and Jhelum, 8,541 theodolite stations being fixed along the bank s of the rivers.

Settlement *masavis* for 328 villages were completed, and thirty 4-inch sheets were traced and supplied to the Settlement Officers of Hoshiárpur, Una, Ferozepore, Siálkot and Shahpur.

In addition, twenty 4-inch riverain boundary sheets were plotted and compiled, 10 sheets typed, 23 sheets completed, and 371 village maps were reduced by pantagraph to the scale of 4 inches = 1 mile.

Other work done.

54. The rectanglar survey of the area to be commanded by the Lower Bari Doab Canal was carried over the remaining tract. In all 55,000 rectangles were demarcated. Nearly 40 per cent. of the work was tested by the Naib Tahsildars, Tahsildars and the Survey Officers and 15 per cent. was checked with theodolite traverse. Four thousand seven hundred and eighty-two linear miles of traverse were run, and 13,788 theodolite stations were fixed. The whole of the demarcation was finished by December 1912.

The total expenditure on the riverain work from 1st October 1911 to 30th September 1912, excluding the pay of the *khalasis*, was Rs. 24,969, and that of the Lower Bari Doab work was Rs. 2,00,981, or annas 2·34 per acre.

The Upper Chenab rectangular survey was practically completed last year, and that on the Upper Jhelum Canal has now been finished.

The topographical survey parties surveyed 7,373 square miles on the 1-inch scale and a small portion on the 1½-inch scale in Gujránwála, Siálkot, Lahore, Amritsar, Ferozepore, Hoshiárpur and Jullundur and in Kapúrthala State. Thirty-seven 1-inch standard sheets relating to the Punjab were published during the year.

12.—Revenue Surveys and Settlements.

55. Government orders were received during the year on the final settlement reports of Karnál, Delhi and Ludhiána. Those of Hissar and Gurdáspur were sent to Government after the close of the year.

Kulu.—The records were practically complete by the end of the year, and the Settlement Officer is now winding up the settlement, which will take 3 months less than the sanctioned period, and will cost 22 per cent. less than the estimate. The sanctioned enhancements will be taken and the cost of settlement recovered in 2½ years.

Kángra.—In last year's report the difficulties experienced in the Dehra-Hamirpur settlement were noticed. In the year under report they were accentuated by the illness and eventual departure on leave of the Settlement Officer. Before he left, however, Mr. Connolly had succeeded in getting the work well under way. Additions to the staff were sanctioned, and the record work is now complete for about two-thirds of the estates concerned. Orders were passed on the preliminary report, and village inspections are well in hand. The Commissioner believes that the settlement will be completed by the end of 1913 in Una and in the course of 1914 in the other two tahsils.

Hoshiárpur.—Measurements were finished in two tahsils and assessment reports completed. In Garhshankar tahsil measurements were to be finished shortly, record work not till February 1913. The settlement should be completed by the end of 1913, and the total cost will not be more, and will probably be less, than the estimate.

Ferozepore.—Measurements were finished in Moga and nearly finished in Ferozepore. They are making good progress in Muktsar and Zíra. It was found necessary to subject the maps in Fázilka to a more complete revision than had in the forecast been anticipated to be necessary and in some estates to re-measure. The Moga assessment report was received, and that of Ferozepore was written before the close of the year, and the former has been submitted to Government.

Gurdáspur.—Assessments in the remaining tahsils—Shakargarh and Pathánkot—were announced and distributed, and the settlement concluded at the end of the year.

Amritsar.—The new maps and records have been cómpleted in Amritsar and Tarn Táran, and the work is in full swing in Ajnála. The assessment reports for the first two tahsils were sent up and orders passed on them. Ajnála alone remains to complete the settlement.

Siálkot.—Work was in progress during the year in Daska, Raya and Pasrúr tahsils. Half of Raya and two-fifths of Daska have been re-surveyed, while *killabandi* is in progress in that part of Pasrúr which is to be irrigated by the Upper Chenab Canal. Fair progress has been made, and the Settlement Officer hopes to finish in the scheduled time. The prospect of canal irrigation involved very heavy partition work in Pasrúr.

Gujránwála.—Field work was practically finished, and assessment reports disposed of. Announcements have been delayed, as *killabandi* brought to light important changes in soil classification which involved re-casting the village assessments.

The settlement will accordingly take 3¾ years instead of 3 estimated, and cost more than half a lakh more than the estimated amount of 4 lakhs.

Shahpur.—Record work was completed in Shahpur for all the villages in the year's programme and a few more. Final attestation has not kept pace with field work, but was to be completed for these villages early in the current year. Orders were passed on Mr. Rudkin's assessment report of the Lower Jhelum Canal area and the settlement of that area concluded.

Lyallpur.—The assessment report of the Gugera Branch II circle was submitted and orders passed on it during the year. This assessment is estimated to bring in Rs. 14,71,784, an increase of 109 per cent. In the Lower Jhelum colony the re-assessment is estimated at Rs. 13,45,562, an increase of over 200 per cent. It is again to be noted that re-assessment in these colony areas costs practically nothing beyond the pay of the Settlement Officer, as no revision of records is required, while the large increases expected are fully justified by the prosperity of the tracts and by the fact that the first assessments now under revision were tentative and largely nominal.

Preparations for future operations.

56. Map correction and revision of records in preparation for the settlement were in progress in Lahore and Gujrát; two-fifths of the records being brought up to date by the abbreviated system of map correction in Lahore, and the work being completed after two years in Gujrát. The re-settlement of these districts was sanctioned during the year, and the settlements began in October and November 1912, respectively. The Jullundur forecast was dealt with during the year, and the settlement has been sanctioned by the Local Government and will begin in October 1913. A new scheme of settlement operations was prepared during the year and sanctioned by Government. Under this scheme the remaining tahsils of Kángra are due for re-settlement in 1913, but work will not be commenced till establishment is available from the Dehra-Hamírpur settlement. It is hoped, however, that with the experience there gained, and with help from the Survey Department, it will be possible to push measurements through quickly in the remaining tahsils. Simla and Montgomery are due for re-settlements in 1914, and the Simla forecast will be sent for this year. As to Montgomery, the Colonization Officer, Lower Bari Doab Canal, will probably have to undertake part at least of the settlement.

13.—Land Records.

Patwaris.

57. The number of patwaris and the areas, &c., of their charges have not changed since last year.

The only change in the scale of pay of patwaris has taken place in the Ludhiána district, where the rates were raised to Rs. 14, Rs. 12 and Rs. 10 with effect from April 1st, 1912. The patwaris of the Province submitted a petition during the year for, among other things, an increase of pay, but this was refused on the ground that Government would not be justified in raising the patwaris' pay in view of the large expenditure that would be involved, as long as men are available to do the work. It cannot be said that there is a dearth of candidates except in a few districts, and the measures recently taken to train larger numbers of men for school masters will no doubt tend directly and largely to increase the number of men from whom patwaris are selected. The total cost of the patwari establishment amounted to Rs. 46,942 more than last year, owing partly to the bonus of 15 days' pay granted on the occasion of the Delhi Darbar, and partly to the large increase in expenditure on stationery for the use of the settlement staffs, which were more numerous than usual.

Patwarkhanas.

58. In orders passed on the proposal to make more general provision for patwarkhanas it was decided to take no drastic steps in that direction.

At the same time the rules were amended so as to allow the Collector in really necessary cases to sanction the location of the patwari's family outside the circle. During the year Rs. 12,350 were spent on the construction of new patwarkhanas, chiefly in Kángra, Jhang and Miánwáli, while Rs. 2,055 were spent on repairs.

Kanungos.

59. The amalgamation of the district and settlement kanungo staffs was carried out in all districts towards the close of the year, and its working will be noticed in next year's report. It will also be considered whether the time has come when all permanent kanungos might be allowed to attest the mutations now attested by special kanungos, the latter being empowered to attest all mutations.

Records,

60. The preparation of the annual records still receives insufficient attention. The closer association, however, of other officers of the district staff, besides the Revenue Assistant, with revenue record work should alter the present state of affairs and render it possible for Collectors to arrange for the adequate check and attestation of *jamabandis*.

The experiment of associating the Director of Land Records with settlement work has proved a marked success. The new system of revision of records tried in Gujrát, Lahore and Shahpur, which is really what the late Colonel Wace aimed at in 1885-88, *viz.*, the continuous correction of the record up to date as provided in the Revenue Rules, gives every promise of success. The question of the extension of the system generally or when districts come under settlement is now being considered.

14.—Waste Lands and Government Estates.

Lands managed by Deputy Commissioners.

61. There is little to record as to the management of State lands by Deputy Commissioners during the year. The management of the rakhs in Attock is reported to be in an unsatisfactory condition. The staff is inadequate, and the rakhs are very scattered. The Deputy Commissioner is investigating the matter, which will probably come to the notice of Government during the current year. Small leases for cultivation were sanctioned in Dera Ghâzi Khan, Multán and Miánwáli.

The management by the Deputy Commissioner of the Shahpur Kandi forests in Gurdáspur continues satisfactory. In Dera Gházi Khan it was decided to bring all the forests under the control of the Deputy Commissioner with a Forest Ranger deputed to assist him.

The experiment introduced by Mr. Kitchin of associating non-officials with the management of *guzara* forests in Murree and Kahúta has been officially recognized by Government, and revised rules were sent up during the year, and were notified shortly after its close. The system appears to be working well, though the Deputy Commissioner reports that one of the three non-officials appointed is in arrears with his work.

Very large remissions in the *tirni* demand of Montgomery were necessitated by the failure of the rains, which produced a fodder famine. There was no grass in the Bar, and the Government rakhs which normally support large herds were deserted.

Lower Chenab colony.

62. The allotted area shows a decrease of 3,582 acres, due to confiscations of mule-breeding grants in Lyallpur and Gujránwála. These will be re-allotted in due course. The small balance of unallotted land will be sold for full market value, now that the villages have been established.

The area sown was 9,000 acres more than last year, bringing the total cultivation up from 103 to 104 per cent. of the allotted area. Remissions were granted on 4·3 per cent. only of this large area, and the practical result is that the colonists have matured cent. per cent. of the total area allotted to them. The abolition of holding-to-holding *kharaba* has reduced the area on which remissions were granted by less than 1 per cent., and has not led to greater economy of water, as was hoped. The fact that the water-level

is rising a foot a year in Lyallpur supports Government's view that measures should be taken in the interests of the colonists themselves to reduce over-irrigation. However, it is too early yet to gauge the full effects of the abolition of holding-to-holding *kharaba*.

The future of the Camel Corps was still under the consideration of the Government of India. *Surra* has been markedly diminished by transporting the Corps across the Ravi during the rains. Revised rules for mule-breeding grants have recently been sanctioned which permit of their being held by grantees who are not lambardars. Horse-breeding is entirely voluntary and is making great progress.

It has been decided, in view of the multiplication of trees throughout the colony and the consequent disappearance of the conditions which called for the artificial stimulation of arboriculture, to reduce the number of village plantations originally established as nurseries by selling those at a distance from the village-site and retaining only such as serve a useful purpose. At the same time the cultivation *killas* attached to these plantations were added to the lambardari grants free of service conditions, thus enhancing the emoluments of headmen by providing them with *ex-officio* cultivation grants of about 2½ acres each. The Deputy Commissioner of Gujránwála reports that this measure is very popular. The scheme of reward grants-in-aid for sanitation was abolished with the surrender by Government of the ground-rent income in consideration of which such grants were made.

The re-assessment of Gugera Branch II circle was completed during the year, and the result was an enhancement of 109 per cent. as compared with the previous provisional demand. A lower schedule of occupiers' rates was sanctioned by the Government of India for inferior villages, and a list of these villages was prepared by the revenue and canal authorities in consultation. The enormous value of fodder crops in secure areas was brought to the notice of Government by the Financial Commissioner in reviewing this assessment report. Subsequently the shortage of fodder in other parts of the Punjab enabled the Chenab colonists to swell their incomes even more by exporting large quantities of *bhusa* to Montgomery and other affected districts. The re-assessment of the Rakh Branch is nearing completion, after which will remain the re-assessment of the areas on the "Extensions" and of some 58 villages on the Montgomery border.

With hardly any exceptions, the towns of this colony are growing and prosperous: none of them, however, are as yet self-supporting. Modern systems of drainage and water-supply are expensive to construct and maintain, and it is undesirable to withdraw at too early a period the fostering aid of Government. There can be no doubt, however, that the grain-merchants and middlemen are not taxed sufficiently for the amenities they enjoy.

The Colonies Act (V of 1912) became law on June 28th, 1912. It is reported to have been well received in the colony. It provides, among other things, for exchanges of tenants' holdings only, so that the acquisition of proprietary rights will afford relief to the local officers whose time had recently been excessively occupied in dealing with exchanges of land. All but 7 per cent. of the yeomen and capitalist grantees have either completed or paid instalments towards the acquisition of proprietary rights in their holdings. The peasant grantees are also freely availing themselves of the concession, and paid in some fifty-nine lakhs of rupees during the year. Widows have not been allowed to purchase.

63. The allotted area now totals 436,159 acres. Some years ago it was estimated that the limit had been reached when 375,000 acres had been allotted; and it seems possible that the poor soil remaining may yet be worked at a

Jhelum Canal colony.

profit. Of the allotted area 87 per cent. was cultivated and remissions were allowed up to 10 per cent. of the sown area, mostly in kharif. It seems likely that still further improvements in the distribution of water will be effected, and unless the opening of the Upper Jhelum Canal causes a set-back, a yearly enhancement in the percentage of crops matured, as on the Lower Chenab, may be looked for.

The passing of the Colonies Act had had little effect in this colony. The concession to widows of sonless grantees which was introduced last year is said to have caused some trouble. There is no revival of the fictitious agitation against primogeniture, and it is significant that horse-breeding conditions are more faithfully observed by colonists of the peasant type than by grantees of large areas. On the Lower Chenab Canal, too, it was the wealthy lambardars whose shortcomings in the matter of mule-breeding led to confiscation of grants.

Mr. Rudkin's assessment report was disposed of during the year and the new assessments put into force. The result of resettlement is an increase approximately of 208 per cent., which was amply justified by the prosperity of the colonists and the circumstance that the superseded assessment was merely an initial tentative one. It was inevitable that there should be appeals against the assessment, but only 8 appeals have reached the Financial Commissioner. Of these six have been rejected and two are pending. In this colony also a lower schedule of occupiers' rates has been sanctioned for inferior villages.

Occupancy rights have now been given to all horse-breeding peasants who are entitled to them. Apparently the Jhelum colonists are perfectly satisfied with this tenure, and no petitions for proprietary right have been received in consequence of the concession made in this behalf to the Chenab colony.

Towns in the Jhelum colony are prospering, though their rate of progress is naturally slower than in the larger colony on the Chenab. The question of maintaining these towns presents the same difficulties as in Lyallpur.

Tree-planting is said to be at a standstill for want of funds, which will be more plentiful under the new assessment. The experiment of controlled horse-breeding in the Jhelum colony is from a Remount Department point of view a conspicuous success.

Chunian colony.

64. Small grants totalling 493 acres were made during the year, bringing the allotted area up to 80,664 acres. The area remaining for allotment is only some 1,700 acres, most of which will be absorbed by the military reward grants sanctioned last year. Of the area permanently allotted, all except 1,000 acres was sown during the year; 8 per cent. failed owing to scanty rainfall and imperfect canal supply. Outstanding arrears are insignificant. Very few tenants in this colony have completed the residence of 15 years requisite as a condition for the purchase of proprietary rights.

15.—Wards' Estates.

Number and value of estates.

65. The Court of Wards had under its superintendence 53 estates, the total assets of which amounted to over Rs. 416 lakhs. The area controlled and the value of the landed property are somewhat smaller than in the preceding year, but on the other hand the value of the house property is higher. Six estates have an income of over a lakh, and four of over half a lakh.

Results.

66. Four estates were released from superintendence, all in flourishing condition. The excess of assets over liabilities for all estates still continues.

Methods.

67. Improvements in the estates themselves are progressing, along with investment of the cash balances in real estate. Horse-breeding is successful at Mamdot and Kot Fatteh Khan, and sheep-breeding at Mamdot and Kot. Considerable attention is being paid to tree-planting and horticulture. Fourteen wards attended the Aitchison College during the year.

Chapter II. ADMINISTRATION OF THE LAND.

Audits.

68. The audit reports furnished by the Examiner of Local Fund ccounts have been of the utmost value. In some cases glaring defects of anagement have been brought to light, the Public Works Department of the amdot Estate being a conspicuous instance.

16.—Revenue and Rent-paying Classes.

General.

69. The total number of villages in the Province is ten more than last ear, owing principally to the formation of new estates in Lyallpur and Gujránála. The total number of landowners and share-holders is 3,622,082, an crease of 33,368 since last year, and the number of holdings has increased om 3,082,348 to 3,135,472. The figures suggest that subdivision of holdings once more becoming a feature of life in the rural Punjab, perhaps owing to he diminution of plague. The average size of a holding is 12 acres, of which are cultivated. Last year it was reported that of the total area held in roprietary right, one-sixth was owned by persons who are not members of otified agricultural tribes. This year the fraction is nearer one-seventh. The cultivated area under mortgage has risen only from 12 to 13 per cent. of the total cultivated area. The heaviest percentage of cultivation under mortgage is, as last year, in Siálkot and Gurdáspur, and the lightest in Ráwalpindi, Montgomery and Attock. It is quite logical that the two former districts are to the fore in the matter of agricultural banks, while the three latter are near the bottom of the list. An interesting development is reported from Hoshiárpur. Mortgagees are commonly permitting part of the mortgaged area to be redeemed without any payment being made, the reason being that they are afraid that if they refuse, the mortgagor will redeem the whole area and remortgage a part of it elsewhere on better terms.

Transfers of land.

70. Further luminous illustrations of the growing value of land are afforded by the transfer statistics. The number of sales was greater than in any year since 1900-01, and the area sold exceeded the quinquennial average by 13 per cent. The sale price dropped from Rs. 124 to Rs. 119 per acre of cultivation, but the price was higher than the quinquennial average by Rs. 9 per acre. The drop in sale price reflects the poorness of the kharif crop, better than the mortgage price, which rose from Rs. 101 last year to Rs. 106. The variations in the multiple of the land revenue are extraordinary, and if the causes of the differences from year to year and district to district could be explained, the information so obtained would be most valuable.

Land Alienation Act

71. The additions made to the list of notified tribes were mostly of tribes who were omitted on account of numerical insignificance or difficulty of grouping and very few applications were unsuccessful. Endeavours are made by those who are not notified and see no prospect of being so, to alter their tribal designation: these attempts rarely succeed. District officers are fully alive to the necessity of watching carefully for attempts to evade the Act, and it is very doubtful whether non-agriculturists will ever acquire by means of such transactions any permanent interest in agricultural land.

Agricultural tribes have the great bulk of the mortgages and redemptions entirely in their hands, that is to say, they took three-quarters of the mortgages, four-fifths of the sales, and carried out nearly five-sevenths of the redemptions. The sale figures show more clearly than the mortgages how the agriculturists have gained, and it is reported from one district that money-lenders are relinquishing such pieces of land as they hold, as well as giving up the attempt to acquire land.

RENT-PAYING CLASSES.

Occupancy tenants and tenants-at-will.

72. The proportion of cultivated land held by tenants paying rent is 53 per cent. against 47 per cent. held by owners, Government colonists, and rent-free tenants. Occupancy tenants are in possession of 9 per cent. of the total cultivated area, and 44 per cent. is held by tenants-at-will. Nearly 88 per cent. of the land held in occupancy tenancy pays cash rents. Tenants-at-will, however, pay rent in kind on 72 per cent. of the area held by them. The figures corresponding to these in the previous quinquennial return were 79 and 69, the increases being probably due more to a different system of classification than to any change in the customs of the Province.

Enhancement of rent of occupancy tenants.

73. Suits against occupancy tenants for enhancement of rent show a decrease from 1,813 to 1,666. In 1,314 cases enhancements were decreed. The most notable decrease is in Hissar, where only 87 cases were instituted as compared with 708 in the preceding year,—an abnormally large number,—due to the announcement of the new assessment. Institutions were heavy in Hoshiárpur (479), Jullundur (466) and Gurdáspur (255). In Hoshiárpur and Jullundur the Commissioner attributes the activity of landlords in this behalf partly to the settlements which are in progress in one district and in prospect in the other, but partly also to the general rise in agricultural values. In Hoshiárpur Mr. Fagan adds that occupancy status is generally disputed. The Deputy Commissioners of Rohtak, Lahore and Jhang notice the strong position of tenants in general, which is largely due to plague and partly to the extension of irrigation. From Attock it is reported that landlords in the Chhach are discontented with the low rents paid by their occupancy tenants. In one case a landlord who sued was found to be paying more to Government for land revenue and cesses than he received as rent. The expense of litigation apparently deters these landlords from bringing suits for enhancement in considerable numbers.

Ejectment of tenants-at-will.

74. Applications to eject tenants-at-will have fallen from 11,293 to 10,145, ejectments ordered from 6,270 to 5,974, and ejectments actually made from 5,251 to 4,404. A noticeable decrease in actual ejectments—948 to 597—is in Hissar, where the Deputy Commissioner attributes it to the conclusion of settlement. In Delhi applications fell from 918 to 543, probably owing to the same cause. Large increases in notices issued are reported from Hoshiárpur, where the Commissioner observes that ejectment proceedings will naturally tend to increase, as proprietary holdings are small and the pressure of population on cultivated area grows more and more acute in spite of plague. Applications increased in Ferozepore, principally in the Fázilka tahsil, and here the Deputy Commissioner attributes the litigation to a desire on the part of landlords to prevent their tenants obtaining a higher status by long and undisputed possession. In Lahore notices rose from 1,005 to 1,919 owing to the impending settlement. In Montgomery and Jullundur tenants are said to be hard to find. In Dera Gházi Khan 610 notices resulted in only 14 ejectments. The Deputy Commissioner observes that in most cases these notices are issued to recover rent in the cheapest manner.

Suits by tenants to contest their liability to ejectment resulted in the tenants' favour in 661 cases as against 977 last year.

MISCELLANEOUS.

Descent of Jagirs Act.

75. Nine jagirs were notified during the year under *Punjab* Act IV of 1900—1 in the Kángra district and 8 in the Lahore district. The declarations of a rule of integral descent were based on written documents. The approximate value of the jagirs thus notified was Rs. 12,450. Progress is being made, but out of a total of 29½ lakhs assigned, jagirs amounting to 8 lakhs only have yet come under the Act.

Land Acquisition Act.

76. The large area, 17,698 acres, acquired for public purposes marks the expansion of Railway and Irrigation works and includes land required for new Delhi. The figures showing the number of years' purchase of the land revenue represented by the price of the land acquired go to confirm the remarks made in last year's report regarding the increasing value of agricultural land in the Punjab and the enormous prices paid for urban and suburban sites.

Land Preservation (Chos) Act.

77. The stone bunds erected in the Hoshiárpur district have been found to be unable to withstand the terrific force of the torrents in flood, and action on a larger scale is necessary in that district and in Ambála. The co-operation of the Patiála and Nálágarh Darbars has been invited, and Government has agreed to the appointment of Mr. Holland, I.F.S., to be in charge of reboisement operations in the Siwáliks.

CHAPTER III.

PROTECTION.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Police.—(1) Report on the Police Administration of the Punjab for the year 1912.

(2) Report on the working of the Criminal Tribes Act for the year 1912.

(3) Report of the Chemical Examiner to Government, Punjab, for the year 1912.

Criminal Justice.—Report on the Administration of Criminal Justice in the Punjab and its Dependencies during the year 1912.

Prisons.—Report on the Administration of the Jails in the Punjab, 1912.

Civil Justice.—Report on the Administration of Civil Justice in the Punjab and its Dependencies during the year 1912.

Registration.—Note on the Registration Returns of the Punjab for the year 1912.

Legal affairs of Government.—Report on the administration of the legal affairs of the Government of the Punjab for the year 1912.

Local Boards Administration.—Report on the Administration and Accounts of the District Boards in the Punjab for the year 1912-13.

Municipal Administration.—Report on the working of municipalities in the Punjab during the year 1912-13.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Statistics of British India, Part VI.—Administrative and Judicial.

Part VIII—Local Funds.

17.—Legislating Authority.

The Administration Report for the year 1911-12 gives under this section a detailed account of the history and powers of the Legislative Council.

The constitution of the Council was amended by Government of India notification No. 51 (Legislative), dated 5th October 1912. The number of elected members was increased from 5 to 8, three seats being filled by election by the District Boards. The number of nominated members was reduced from 19 to 16. A few minor changes were introduced into the regulations, but do not call for comment.

78. During the year 9 official and 7 non-official members were nominated, the former consisting of the Hon'ble Messrs. Diack, Fenton, Fagan, Barron, Tollinton, Mant, Godley, Gracey and Sir H. P. Burt, and the latter of the Hon'ble Sir A. M. Ker, Khan Bahadur Mian Muhammad Shafi, Khan Bahadur Khwaja Yusaf Shah, Nawab Ibrahim Ali Khan, Nawab Sir Bahram Khan, Sardar Daljit Singh and Sardar Bahadur Sardar Sundar Singh, Majithia. The Hon'ble Messrs. Meredith and Scratchley resigned their seats on retirement. Changes among members.

The following members were elected :—The Hon'ble Rai Bahadur Shadi Lal (University), Mr. J. Currie (Chamber of Commerce, Delhi), Lala Kashi Ram of Ferozepore, Rai Bahadur Ram Saran Das of Lahore, Rai Bahadur Hari Chand of Multán, by the Cis-Sutlej, Central and Western groups of municipalities respectively; and Babu Gajjan Singh of Ludhiána, Rai Bahadur Bakhshi Sohan Lal of Lahore and Malik Muhammad Amin Khan of Shamsábad (Attock) by the corresponding groups of District Boards, respectively.

18.—Course of Legislation.

Business transacted.

79. Five meetings of the Legislative Council were held,—four in Lahore and one at Simla.

Four fresh Bills were introduced in Council, all of which were passed.

The Colonization of Government Lands (Punjab) Bill pending since 1910 was taken up and made law.

The Acts passed which became law during the year were—

(1) IV of 1912, the Punjab Courts (Amendment) Act Amending Act.

(2) V of 1912, the Colonization of Government Lands Punjab Act.

(3) VI of 1912, the Punjab Panchayat Act.

(4) I of 1913, the Punjab Pre-emption Act.

(5) II of 1913, the Redemption of Mortgages Act.

(6) III of 1913, the Punjab Forests (Sale of Timber) Act.

One hundred and eight questions were put and answered, and one was withdrawn. One Resolution was moved and passed, and one was withdrawn.

Indian Acts.

80. The Acts of the Imperial Legislative Council more particularly affecting the province passed during the year are—

(1) The Wild Birds and Animals' Protection Act (VIII of 1912),

(2) The Indian Divorce Amendment Act (X of 1912),

(3) The Local Authorities Emergency Loans Amendment Act (XI of 1912),

(4) The Motor Vehicles International Circulation Act (XII of 1912),

(5) The Delhi Laws Act (XIII of 1912),

(6) The Indian Extradition Amendment Act (I of 1913),

(7) The Official Trustees Act (II of 1913),

(8) The Administrator-General Act (III of 1913),

(9) The White Phosphorus Matches Prohibition Act (V of 1913),

(10) The Mussalman Waqf Validating Act (VI of 1913),

(11) The Indian Companies Act (VII of 1913), and

(12) The Indian Criminal Law Amendment Act (VIII of 1913).

19.—Police.

General Police Force.

Crime in general.

81. The wave of crime, which has been steadily growing during the last decade, rose still higher in 1912, and the increase on the figures of 1911—itself a record year—was no less than 13·5 per cent. The mass of the

people in the northern districts display a hostile or lukewarm attitude and a desire to hamper rather than assist the police. The dacoities that have occurred in the Ráwalpindi Division of late years have been the work largely of well-to-do men, and the lambardars and other prominent men must have been well aware, in the majority of cases, of their misdeeds. Government has very plainly signified its determination to put a stop to these practices.

The position, as stated in the Police Report for the year, is that, in comparison with the figures for the six years ending 1910, murders and attempted murders show a rise of 25 per cent. and homicides of 19 per cent., while the increase in cases of grievous hurt is 30 per cent., in thefts 16 per cent., in burglaries 40 per cent., and in dacoities no less than 240 per cent. At the same time the percentage of convictions to cases reported has declined from 33 to 28, while out of every 100 cases sent up for trial only 66, instead of 70, resulted in conviction. It is true that station officers are no longer judged by their percentage of convictions, and more crime is brought to light by the better methods of to-day, but there has at the same time been a real increase in crime, due mainly to that disregard of every kind of authority which nowadays is a familiar spectacle in every Oriental country.

Violent crime.

82. Murders were 8·4 per cent. more rife than in 1911 and 30 per cent. more so than in 1905. In two out of every five cases the immediate cause is ascribed to the relation between the sexes,—a fact which is being aggravated yearly by the increasing disparity of the female as compared with the male population.

Dacoities increased by 15 per cent. on last year's figure, and were over four times as many as in 1905. This form of crime seems to occur in waves, and can be dealt with, as in 1899-1900, by special measures. Large gangs were captured during the year and several notable dacoits with modern arms in their hands were arrested very pluckily by Messrs. Bennett and Toms, Assistant Superintendents of Police, the latter of whom received the thanks of Government and the King's Police Medal. The Biluch Levy at Vihoa kept the district of Dera Gházi Khan immune from trans-border raids, but two gangs penetrated into Shahpur and Miánwáli, only to be captured and punished. Robberies were committed chiefly by wandering tribes in the Eastern Range, and, there is reason to believe, by Gurkhas at Dharmsála, whereby the people of that place were for a time in a state of terror. The villagers of Gah in Jhelum beat off a large body of dacoits and were rewarded by the remission of their kharif revenue.

Burglaries and thefts.

83. The scarcity of fodder acted as a check on cattle-stealing and diverted the attention of cattle-thieves to burglary and other offences. Burglaries in 1912 exceeded those of 1905 by 56 per cent. Boat-patrolling of the Indus has been taken up by Government, and some Rs. 6,000 were spent with excellent results.

Other offences.

84. True cases of coining increased by 6½ per cent. on last year and rioting by 21 per cent. A serious feature is the number of assaults on public servants discharging their duty, especially on police officers. There has been a striking rise of 75 per cent. in cases of cheating in the last seven years. This must be taken as one of the results of the spread of education. Cheating is frequently connected with the traffic in women, which is considerably more extensive than is commonly supposed.

Magistrates and crime.

85. There appears to be a growing tendency among Magistrates to overlook the administrative side of their duties, and in the exercise of their judicial functions to rely too much on abstract principles of law and procedure divorced from knowledge of, or sympathy with, the people, for whose protection the law was established. Many cases too shew lamentable disregard of responsibility on the part of Magistrates, intolerable delays, needless adjournments on the most frivolous pretexts—all tending to handicap the prosecution and discourage the

witnesses who have the public spirit to come forward—and, not infrequently, in the event of conviction very inadequate punishment, which emboldens the criminal. The remedy for all this is a more thorough scrutiny and stricter control of the Subordinate Magistrates by the higher tribunals, and above all by the District Magistrates.

There is a general consensus of opinion that Honorary Magistrates have fully justified their existence, and their value as a link between the administration and the people is fully recognised by Government, who are prepared to add to their strength, both in numbers and in powers.

Patrolling.

86. The system of checking patrolling in cities and towns by means of clocks has again given satisfaction and is useful. Rural patrolling is more extensively practised in the Eastern than in the other ranges and has produced excellent results there.

Detection.

87. The Criminal Investigation Department succeeded in bringing to justice a concern in Miánwáli which had committed extensive frauds on the public, and was associated with the local police in stamping out an epidemic of dacoity in Ráwalpindi.

Railway Police.

88. Sixty-four miles were added to the line policed by the Punjab Government. Thefts from running goods trains increased, and such offences are not easy to localise owing to indifferent checking of seals. The patrolling system was improved during the year, and suspicious characters more efficiently watched.

Finger Print Bureau.

89. The work of the Bureau again increased. Search references increased by 3,500 owing to the better understanding of their importance. The percentage of successful traces was the same as last year. Expert evidence was given in 945 cases, an increase of 136 cases over the number in 1911. Written opinions were supplied in 810 cases compared with 692 in 1911. Fees increased by Rs. 1,074.

Inspector-General.

90. Sir Edward French submitted his last report after 4 years as Inspector-General and 35 in the Police force. The Lieutenant-Governor, in his review of the report, expressed his appreciation of the sterling work he had accomplished during his long service in the Punjab and of his vigorous administration of the force during a period of transition and difficulty.

Rewards.

91. The King's Police Medal was granted to eight members of various ranks of the force up to that of Superintendent. Inspector Malik Sher Bahadur Khan was given the title of Khan Sahib. Rupees 17,801 and Rs. 19,111 were paid out of the police grant in reward to members of the force and the public.

CHEMICAL EXAMINER.

92. The work of the Chemical Examiner continues to grow steadily. The number of articles examined increased from 5,124 in 1911 to 9,101 in 1912, but no less than 3,402 of these were samples of cocaine tested for purity and quality, in itself a disturbing indication of the extensive growth of cocaine smuggling.

The use of arsenic in human poisoning cases has shewn some decrease as compared with last year, while opium has increased. Arsenic and opium, separately or together, account for 71·5 per cent. of all the cases of human poisoning. In cattle-poisoning arsenic continues to be the principal agent. There were 14 cases of needle-poisoning.

The percentage of detection in medico-legal cases is slightly less than last year, but has risen again in human fatal cases. It is satisfactory to note that there are no complaints against the manner in which cases have been

submitted for examination. The revision of the rules for the submission of medico-legal cases has been carried out by Major Black, and it is hoped that there will be a further decrease in the number of incomplete references.

The appointment of another Assistant Surgeon to the Chemical Laboratory has been sanctioned on the application of the Chemical Examiner.

Rural Police.

93. Punishments for failure to assist the police and for neglect of duty on the part of the zaildars, headmen and village watchmen decreased considerably since 1911. The rewards paid at the same time increased from Rs. 13,576 to Rs. 19,111. The remarks in last year's Administration Report regarding the inadequacy of the pay of village watchmen and their general inefficiency still hold good.

Criminal Tribes.

94. The encouraging account given in last year's report of the progress made in dealing with the criminal tribes might be repeated this year with emphasis. The numbers of persons on the registers have indeed gone up by 438 to 21,215, and of those non-exempted by 644, while the exempted have decreased by 206; yet there is recorded, in a year remarkable for a high tide of crime, a decrease of 62 in the number of convictions, of 59 in absentees, and of 28 in prisoners at the end of the year. The percentage of convictions to registered persons has gone down in the case of every tribe except four of the smallest. The following table compares the percentages of the total number registered and of the total convictions debited to the principal tribes, and shows which tribes are more criminal in proportion to their numbers: it will be seen that the two larger tribes are in a much less criminal state than the smaller ones:— General.

	Percentages	
	of total registered.	*of total convictions.*
Baurias	32	23
Sansis	40	45
Bilochis	2	3
Tagus	1	3
Harnis	8	7
Pakhiwaras	7	16
Bhats	·9	7
Bars and Tharanas	1	5
Nur Mahrams and Akla Hayat Bilochis ...	2	6

The Baurias show steady improvement and are used as trackers and temporary watchmen in Ferozepore. The Sansis generally are inclined to reform, but are much addicted to petty thefts from standing crops. During the year 34 of them joined the Salvation Army School at Chawa and are doing good work. The Sansi Kanjars are incorrigible and the Bilochis of Karnál show no improvement: those in Ambála are said to commit crime across the provincial border. Six Harnis of Ludhiána have been enrolled as constables as an experiment. The tribe has behaved well in the Central Range. The Pakhiwaras live mostly in Siálkot and gave no trouble except those at Kot Mokhal, where there is a Salvation Army School. Their absentees have increased largely, and the tribe is notorious throughout the province. The Bhats of Siálkot and the Nur Mahram Bilochis in Jhang are considered incorrigible. The latter tribe own land and have their own lambardars, and are particularly skilful in evading conviction. The Commissioner of Multán thinks that the Salvation Army might be successful with them. The Bars and Tharanas of Lyallpur resisted a police raid and had to be fired on: two-thirds of them have been removed to the Ravi.

Work of the Salvation Army.

95. A feature of the year's administration has been the marked success which has attended the operations of the Salvation Army. The tribes take to industrial work which is provided by the Salvation Army in preference to hard manual toil, and also feel a greater sympathy of treatment. A committee has now been appointed to examine the question of the administration of the criminal tribes in all its bearings, with special reference to the further development of co-operation with the Salvation Army, whose work has been restricted owing to their having no official or legal status.

20.—Criminal Justice.

General review of offences.

96. The remarks on the Police Report above will shew the general trend of crime during the year. The record figures for 1911 have been exceeded this year in spite of the removal of Delhi Province from the Punjab on the 1st October. The number of offences reported in 1912 was 223,613, true cases amounted to 143,122, and 128,590 cases and 299,243 persons were brought to trial. The increase in true cases is equally divided between offences under the Indian Penal Code and those under Local and Special Acts. Lahore District again heads the list with the largest number of cases brought to trial under all Acts.

Summary dismissals amount to 31 per cent. of reported offences, compromises to 30 per cent. of cases, and persons convicted to 22 per cent. only of those brought to trial.

Classification of offences.

97. Government is taking serious notice of the suggestions put forward in many quarters for the compulsory registration of marriages and the punishment of women in cases of offences against marriage laws, in order to reduce the volume of such offences. The remarks on the working of the police have dealt with the various forms of crime.

Local and Special Laws.

98. The increase in trials under Local and Special Acts amounts to about 2,000 for the Province. The punishments provided by the Excise Act for cocaine smuggling are proving insufficient to stop the traffic. The Cruelty to Animals Act was again successfully worked on the Murree and Dalhousie roads.

Miscellaneous proceedings under the Criminal Procedure Code.

99. False and vexatious applications for action under section 107 appear to be as numerous as ever. Government is contemplating various alterations of the law relating to this section so as to make such applications more difficult and punishable under section 250 of the Code, and at the same time to render the section itself at once applicable provisionally to all the parties.

Disposal of cases.

100. The disposal of criminal cases was nearly 8,000 in excess of last year's total. Honorary Magistrates and Sessions Judges have done good work towards this increase. District Magistrates continue to dispose of an insufficient number of section 30 cases. The number of appeals and revisions pending in the Chief Court is higher than it has been for some years.

Witnesses.

101. Witnesses are frequently discouraged by the long duration of cases due to unnecessary adjournments. The question of increasing their diet-money is under consideration.

Jirgas.

102. The jirga system is popular and working well in the three districts to which it applies. Under the leadership of the Hon'ble Nawab Sir Bahram Khan, the joint jirga at Fort Munro achieved some notable results in deciding inter-tribal feuds.

21.—Prisons.

Institutions.

103. The changes contemplated in last year's report have been carried out. The District Jail at Lahore was declared a first class Central Jail, and designated the Borstal Central Jail. District Jails at Rohtak and Jhang were

in consequence reduced to subsidiaries. The Delhi Jail was transferred to the Government of India. Camps were formed at new Dera Gházi Khan and Multán: the latter was owing to the great rise in the number of convicts.

The Borstal Central Jail is nearly completed, and subsidiary jails are being built at Dera Gházi Khan, Dharmsála and Amritsar. The accommodation for long-term prisoners is still insufficient.

Admissions.

104. The number of convicts admitted to prison has risen from 16,607 last year to 18,669. It has actually decreased in Miánwáli, where the Frontier Crimes Regulations are in force, but has increased 100 per cent. in Shahpur, where the duration of cases is longer than in most districts. The daily average jail population was 12,770 (against 12,450 last year), and of these 12,553 were males and 217 females. Civil prisoners numbered 44, and under-trials 1,625, the remainder being convicts.

Releases on appeal.

105. The percentage of prisoners released on appeal was 26, higher, that is, than in any previous year. Further investigation is necessary into the fact that the Punjab percentage is higher than those of other Provinces.

Classification.

106. The proportion of criminals furnished by the main religious denominations varies but little from year to year, but the number of Europeans sentenced shows a decided tendency to increase—39 this year against 27 in 1911. The bulk of these are soldiers who have openly committed thefts in order to obtain military discharge. 80 per cent. of the convicts were sentenced to less than a year's imprisonment; solitary confinement combined with rigorous imprisonment is a prominent feature of the administration of justice; sentence of death was passed on 146 persons against 118 in the previous year. The proportion of habitual criminals has fallen from the usual 13 per cent. to 11, and it appears that the decrease is at least connected with the work of the Salvation Army among the Pakhiwaras of Siálkot.

Under-trials.

107. The average period of detention rose from 23 to 25 days; the percentage of acquittals from 55·6 to 59. These figures taken along with the totals of releases on appeal are again seriously commented on.

Discipline.

108. Nine prisoners managed to get away during the year, of whom 6 were re-captured, along with 3 of the escapes of previous years. Three escapes only occurred from inside jails, and the six extramural runaways were only short-term prisoners. The night-guarding continues to be most effective. Peculiar conditions in two jails were responsible for the increased use of fetters as a measure of security from 128 cases last year to 310. The improvement in the conduct of prisoners generally which was noticed last year has been well maintained, the punishments decreasing from 34,380 in 1911 to 33,724. No less than 24,519 convicts had not even a mark against them. The improvement in the management is largely to be credited with this satisfactory result. Out of a daily average of 1,325 convict officers only one has really betrayed his trust, and monthly stipends to convict officers have been sanctioned by Government. The jail staff have risen to the increased work and responsibility demanded from them, and punishments are rare, both the superior and inferior grades being in an extremely healthy state.

Remissions and rewards.

109. Remission continues to form the chief incentive on the higher plane to good conduct and industry. The system is very popular with the convicts, who are increasingly found to prefer remission to money rewards. Only Rs. 102 was distributed as gratuities against Rs. 447 in the previous year.

Financial.

110. The *total* expenditure on guarding and maintenance was Rs. 10,22,385, an increase of Rs. 85,443 on last year; on the daily average strength, the cost per head was Rs. 80-14-3 against Rs. 76-0-6. The cost of

establishment rose by nearly Rs. 9,000 owing to the award of extra pay on the occasion of the King Emperor's visit and the reorganisation of the Borstal Central Jail. Expenses on dieting increased from Rs. 24-3-0 per head to Rs. 27-11-7, owing to the rise in prices of food-stuffs, in spite of which the Punjab prisoner is fed for Rs. 2-5-0 per mensem.

Jail Industries.

111. The daily average number of convicts sentenced to labour rose a little to 10,992 from 10,881 in 1911. 44 per cent. of the convicts are available for the factories and to meet the demands of maintenance (excluding those employed on lands). Over a lakh of rupees worth of produce was raised from jail lands, and in factories the profits increased from Rs. 2,23,378 to Rs. 2,74,115. The excavation work on the Lower Bari Doab Canal was completed after three years' hard work, on which 400 prisoners were daily employed. There was a clear profit of over half a lakh, and Jailor Khair-ud-din received the title of Khan Sahib for the unflagging energy he displayed. The paper factory yielded a profit of $\frac{1}{3}$ of a lakh, lithographic printing Rs 45,000, *Chicks* Rs. 23,543, oil-pressing Rs. 9,958, weaving Rs. 52,314. The net cost per prisoner, in spite of the higher earnings by Rs. 3-8-0 per prisoner, was Rs. 59-4-0 against Rs. 57-14-0 in 1911, which is entirely due to the rise in prices of food. The Central Jail at Lahore kept each prisoner on Rs. 24-8-0, whereas he cost Rs. 196-6-0 in Dera Gházi Khan, where supplies were expensive.

Accommodation.

112. The total accommodation available during the year was for 14,132 prisoners, or a decrease of 338, owing to the demolition by the Indus of the Dera Gházi Khan Jail. This number overlaps the daily average of 12,658, but the latter have to be classified and long-termed prisoners are increasing, so that serious overcrowding occurred in 14 jails. Accommodation for 1,240 will be added during the year, and the effect of this will be watched. A camp for 300 was opened as a temporary measure only at Multán. "Overcrowding" in the jail sense of the term only means overcrowding of the site, not of the buildings: 50 square yards of site area per head is regarded as a safe density, and actually 119 square yards were given as a minimum during the year. Over 4 lakhs were spent on buildings.

Health.

113. The total admissions to hospital declined by 123 to 7,641, the daily average from 401 to 353, and the mortality rate from 26·42 to 18·88. The year was a healthy one, and practically no malaria raged in the autumn. There was no cholera; dysentery slightly increased, and may perhaps be reduced by a different latrine system; cases of malaria also increased, but there was only one death; tubercle decreased by 79 cases and 14 deaths. Government has sanctioned in each Central Jail the appointment of a specially trained Sub-Assistant Surgeon, a general review of the ventilation problem by the Sanitary Commissioner and Engineer, and the construction of a special tubercular jail. There were 50 fewer cases of pneumonia, but a higher case mortality, and here too better ventilation and a drier atmosphere secured in sleeping quarters would probably reduce the incidence of this disease.

Juvenile adults.

114. Eight hundred young men from 16 to 22 years of age are receiving special attention in the Borstal Central Jail. Industry is taught under specially advantageous conditions, with the advice of the President and Vice-President of the Mayo School of Art; physical culture consists of games, drill and exercises. The Amritsar Temperance and the Released Prisoners' Aid Societies have been called in to teach morality and formation of character, the latter society having been formed this year under the auspices of the Salvation Army, which is doing such good work among the criminal tribes of the Punjab. Religious teachers have also been provided for Christians, Muhammadans and Hindus, and the Sikhs are being approached for a priest.

Management.

115. The past five years have been a period of strenuous and continuous prison reform in all branches. The worst defects have been eliminated, and a serious attempt has been made to reclaim prisoners to a higher and saner

view of life. Sir Louis Dane has recorded his appreciation of the work of Lieutenant-Colonel Braide and the jail staff under him in bringing about such satisfactory results.

22.—Civil Justice.

Institutions.

116. In spite of the hopes expressed in last year's report that the decline of litigation might prove to be of a permanent character, and in spite of the removal of Delhi from the Province on 1st October 1912, the number of suits instituted has exceeded that of any year since 1904, with the exception of 1909, and is 17,684 in excess of last year's figures, having risen by 17,684 from 182,182 in 1911 to 199,866. An increase has taken place in practically every district. Suits for money or moveable property totalled 165,842 in 1912 against 152,074 in 1911 while suits for title and other suits numbered 34,024 against 30,108. The reasons for the rise and fall of civil litigation have been variously explained, as in previous years. It is difficult, however, in view of conflicting opinions, to attribute the present increase to any particular cause. It may be noted that nearly 50 per cent. of the suits instituted were below Rs. 50 in value, and it would clearly be a great relief to the courts and the parties if some method more simple, speedy and inexpensive than the cumbrous machinery of the courts were devised for the disposal of this great mass of petty litigation. With this object the Civil Panchayats Act has been passed, and the rules for working it have been framed and issued. The Act is being tentatively introduced in selected districts, and its working will be carefully watched and encouraged. Muzaffargarh has now become the principal litigating district of the Province with a total of 12,258 institutions, higher by 884 than any other district.

Classification.

117. Suits for foreclosure of mortgages numbered 2,337 or 39 more than in 1911, and those for redemption rose by 175, thus returning to the 1910 figure. Suits for pre-emption were 705 more than last year, owing to the rise in the value of land. Matrimonial suits still tend to decrease. But there has been a striking rise in insolvency proceedings in the canal colonies, where there must be fewer real insolvents than anywhere. The reason is partly the failure of certain courts to understand the Act, and partly the unfair use made of its provisions by agriculturists to defeat their creditors. Steps have been taken in Lyallpur to ensure proper working of the Act, and the cunning of debtors will soon produce its own anti-toxin in the shape of contracted credit. The unsatisfactory working of the Guardian and Wards Act is again the subject of comment, but it is hoped that a study of the system in force in other provinces will effect some improvement. The growing value of land, especially of house-sites, accounts for the increase of 2,000 this year in suits for possession of immoveable property.

Value of suits.

118. The total value of suits instituted in 1912 was Rs. 3,36,89,842 as compared with Rs. 3,10,15,031, the increase being mainly under the head of suits for money or moveable property. The average value was Rs. 169 in 1912 and Rs. 170 in 1911. Two suits of over a lakh in value were filed, one in Ludhiána and one in Ambála.

Disposals.

119. Original suits for disposal rose from 218,656 to 239,605, and disposals from 192,115 to 208,653. The average duration rose from 65 and 32 days for contested and uncontested suits, respectively, to 70 and 36. It is a matter for satisfaction that, though the number of officers employed in the disposal of civil suits was less by 15 than in 1911, the number of suits decided was 16,538 in excess of last year's total, and this in spite of the fact that many courts were more busily occupied with criminal work. The average duration of suits has risen considerably, but perhaps this may be accounted for by the general increase of judicial work. Munsifs disposed of more than three-fourths of the total volume of cases, and, though their figures show a slight improvement as compared with 1911, an average duration of 64 days for a contested and of 26 days for an uncontested suit appears unduly protracted.

As far as the appellate courts are concerned, the most noticeable feature was the increase of the pending file in the courts of Divisional Judges from 2,919 to 4,001. This is explained by larger institutions and heavier criminal work. The combined outturn of civil and criminal work was larger than in 1911.

Chief Court.

120. In the Chief Court the institutions of appeals show the large increase of 706 cases. The disposals were, however, 823, or nearly 75 per cent. in excess of the preceding year, and the pending first appeals also decreased in number. The assistance of a seventh Judge partly contributed to these results, and presumably also the amendments to the Punjab Courts Act which came into force on 2nd February 1912, though the results of this latter measure will be more clearly marked in future years. The pending file was heavier than it had been since 1906. On October 1st, 1912, the Province of Delhi was separated from the Punjab, but the Chief Court has retained its jurisdiction over the Delhi Courts.

Execution.

121. The amount realised in execution proceedings was Rs. 52 lakhs an addition of one lakh to last year's figure, and the percentage of realisations remained at 27. The question of increasing the pay of the whole process-serving establishment of the Province grows, in the opinion of Judges, more urgent every year.

General.

122. Inaccessibility of revenue records is complained of, and the suggestion made that a special official be appointed in the various districts to hunt out information for the benefit of parties and courts. But the difficulty originates in the fact that civil courts are being more exclusively manned by officers not thoroughly familiar with village records from practical experience of the way in which they are prepared. Such officers are consequently not cognisant of the sources of information available in the revenue records, or of the means to extract it. The matter is of much importance in view of the increasing number and complexity of suits relating to land or involving questions of custom, and of the recent limitations on second appeals. A possible solution of the difficulty would be to put all judicial officers who have not had experience of revenue work or received a special training in settlement through a brief practical course of instruction in the methods by which revenue records are prepared and maintained.

23.—Registration.

General Business.

123. As compared with 1911, the number of compulsory registrations increased by 13 per cent. and was higher than in any year since 1909. The increase is chiefly in sales, mortgages and leases, and is general throughout the Province. In so far as it is susceptible of any general explanation, it may be ascribed to a year of agricultural prosperity and freedom from plague during which the prosperous peasants of the Central Punjab redeemed their ancestral lands from mortgage, and to the steady rise in the value of agricultural land which led to its remortgage for enhanced consideration. Other special and contributory causes are speculative losses among the traders of Hissar and Ambála, mortgages by emigrants in Ludhiána and Hoshiárpur as a preliminary to embarkation, acquisition of proprietary rights by peasant grantees in Lyallpur, and in Dera Gházi Khan the necessity of borrowing money for the erection of private buildings in the new city.

The value of the property transferred increased by 24 per cent. This increase is due to the steady increase in the value of immovable property which has been noticed in previous reports.

As compared with the increase in compulsory registrations, the increase in optional registrations of immovable property is only 3 per cent. As explained in previous reports, the growing confidence in mutation procedure is no doubt responsible for the relatively smaller number of such documents

registered. The decrease in value is all under the heads "Instruments of Lease" and "Awards". As pointed out in last year's report, the figures under these heads in 1911 were abnormal. The variations in the number of optional registrations affecting immovable property are unimportant. The large increase in their value is due to the registration at Delhi of one document relating to property of the value of 30 lakhs.

Land Alienation Act.

124. A large number of *benami* transfers are reported, but in all cases the evasion was discovered not at the time of registration, but at the subsequent mutation proceedings. A registering officer appears to have no legal authority under the Registration Act to refuse to register a transfer which he suspects to be in contravention of the Land Alienation Act, but the matter is under consideration.

Income and Expenditure.

125. The income from registration fees has risen by nearly 14 per cent. owing to the increase in the number and value of registrations. The increase from other fees is 17 per cent., and the total increase in income of all kinds is 14 per cent. The total expenditure is almost exactly the same as last year. With the exception of the increased percentage paid to registering officers, which is of course due to the increase of registrations, the variations under the various heads of expenditure are due to formal causes, such as the separation of the Delhi Province from the Punjab and the lower salaries being drawn by the Inspector-General and his registration clerks in 1912 than in 1911.

23-A.—Legal Affairs of Government.

Opinion Work.

126. The references for opinion disposed of by the Legal Remembrancer amounted to 897, an increase of 38 per cent. since 1907. The Secretary to Government, Civil Department, was responsible for 227 of these, the Irrigation Department for 281, and the North-Western Railway for 121.

Civil Business.

127. The Secretary of State was plaintiff in 30 original suits during the year, 24 of which were decided in favour of and two against Government, while 4 remained pending. One hundred and twenty-eight original actions were defended by Government, against 183 last year, the land acquisition references having decreased. The total enhancement in acquisition cases (which were mainly connected with the North-Western Railway and the King Edward Memorial) was Rs. 1,20,000, the amounts actually claimed by the owners above the Collector's awards being over 7 lakhs. Of the other civil suits, 24 were decided in favour of and 5 against Government, whilst 44 remained pending.

Revenue Suits.

128. There were 3 suits in the original Revenue Courts on behalf of the Secretary of State, and all were decided in favour of Government.

Criminal Business.

129. In the Chief Court 7 original cases were prosecuted by the Government Advocate, 4 successfully; while of 199 revision applications and 51 miscellaneous proceedings, 67·6 and 31·7 per cent., respectively, were successfully advocated. Out of 698 persons, whose appeals were before the Chief Court, those of 498 were decided, the Government percentage of success (whole or partial) being 85·5 against 75·6 last year.

In Subordinate Courts, the Assistant Legal Remembrancer was deputed to prosecute in 33 original trials and 33 revision applications, and was successful in 27 and 25 respectively.

24.—District and Local Boards.

Elections.

130. The elections for membership of District Boards still fail to arouse anything like general enthusiasm. The only district in which interest seems to be taken in voting for members is Hoshiárpur, where for five contested seats (out of eight vacant) there were 14 candidates, and from 67 to 81 per

cent. of the voters went to the poll. The privilege of voting for members of the Provincial Legislature seems to be appreciated by the Board members, but without much reflex action as yet on the voters of the district.

Meetings.

131. In almost all districts the Board meetings were satisfactory in point of frequency. The actual figures are misleading, as they comprise both special and ordinary meetings, which are frequently held on the same day in order to comply with the rules which required that certain business should be transacted at special meetings only. The rules have now been revised so as to provide for one class of meeting only. The attendance of non-official members fell below 50 per cent. in three districts only, and was on the whole satisfactory.

Working of the Boards.

132. There are signs of growing interest on the part of members of District Boards and also of the public in the working of the Boards and in the policy pursued by them with regard to education, communications, arboriculture, etc., though questions of sanitation cannot be said to arouse much enthusiasm. The District Boards are in a much better financial position than formerly, owing to the abolition of contributions to Government, the liberal grants by Government for education, roads and sanitation and the raising of the local rate in several districts. Progress in many directions has been rendered possible by these salutary measures, and public spirit has been awakened by the prospect of opportunities which were previously out of reach. It is becoming increasingly more common to find members assisting at local fairs and functions, supervising expenditure, and discussing subjects that come before meetings.

The Lyallpur District Board is very active in directions off the beaten track, and, though in the case of an experimental farm it seems to have acted *ultra vires*, it takes a real interest in philanthropic movements and the question of imparting religious education to school children, which is one of the most difficult problems of the day. Two other Boards are establishing industrial schools to teach weaving, pottery, carpentery and smith's work.

Devolution of work.

133. Opinions vary as to the utility of sub-committees, but there can be no doubt that as institutions they have come to stay, and that they afford valuable opportunities for good work on the part of members. The system of local sub-committees, which has worked for some time with success in Hissar, is recommended by the Lieutenant-Governor to other districts.

Education.

134. The Boards were unable to spend more than half the Government grants for education, chiefly because of the lack of trained teachers. In Ambála the educational authorities were asked to take in twenty more men than usual in the Normal School, but were unable to accede to this request. It is, however, added that the question of opening a second Normal School is under consideration. The Commissioner of Ambála suggests that two or three districts should combine to found a Normal School to train their own men. In Karnál, Shahpur, Multán, Montgomery and Lyallpur training classes were opened in connection with existing middle schools, but from Lyallpur it is reported that the classes were not a success. No further difficulty, however, should be experienced at Lyallpur, as since the close of the year under review a Government Normal School has been opened there. This district still holds the lead in educational expansion, no less than 55 new Primary Schools being opened during the year.

Medical.

135. The Boards' expenditure increased in spite of diminished endowments and contributions from Government. The Karnál District Board opened their King Edward Memorial Hospital during the year, the cost being a lakh and a half to the Board, besides private subscriptions. In Lyallpur also

large additions to hospital buildings were made. In Gurdáspur the District Board, with the Commissioner's sanction, gave grants towards hospitals and other medical needs of the committees of small notified areas, which were in need of assistance, in cases where the hospitals or other institutions served areas subject to the District Board also.

Veterinary.

136. Considerable progress has been made in providing new veterinary hospitals. Four have been opened at head-quarters of tahsils in the Hissar District. The Deputy Commissioner of Shahpur calls attention to the increased tendency on the part of the public to take advantage of veterinary hospitals. Expenditure on bulls and stallions has also risen by Rs. 10,000. The Commissioner of Lahore is strongly in favour of the practice in Lahore, where the District Board purchases bulls and then re-sells them at half price to purchasers in the district. The Siálkot Board also proposes to adopt this plan. The result in Lahore is that the Board of this district, with the smallest income in the Lahore Division, expended Rs. 11,587 on bulls and stallions as against Rs. 4,510, the next highest expenditure in the Division.

Arboriculture.

137. The District Boards of the Province are in possession of very valuable and widely-extended property in the shape of road-side trees and gardens: some have more and some less, but in no district can arboriculture be termed unimportant. The results in each district vary considerably, some showing a handsome profit, others a loss. But working plans have been made out and efforts are generally made to manage the district trees well. In spite of all this, one report shows that sixteen miles of young plants have died during the year, another that serious irregularities in the sale of roadside trees have been revealed by the local audit, there being in the same district a loss of Rs. 4,500 on the year's working, in spite of fertile soil and abundant rainfall. The supervision of district arboriculture must always be a difficult matter, and for its due discharge the local agencies cannot always be sufficient. It is therefore satisfactory to note that use is being made of the Forest School at Chánga Mánga for training men to carry out arboricultural operations in tahsils, and if they are of the right stamp there should be a gradual improvement in the income of District Boards under this head.

Sanitation.

138. The system of imposing taxes in large villages for sanitation purposes is being extended in Lyallpur and other districts, and the results will be watched. Expenditure of all boards on sanitation rose by Rs. 3,679, but is still small.

25.—Municipal Administration.

General.

139. The loss of the first class municipality of Delhi has made a large gap in the history of local self-government in the Punjab, and in estimating progress the statistics relating to Delhi and two notified areas in its environs must be excluded: the advantage of having on the border of the province an Imperial city with large funds available for model improvement schemes will be realised more as time goes on. There are now 104 municipalities with an aggregate population of a million and a half and 1,162 members, ten per cent. of whom are Europeans and twenty per cent. officials. The number of notified areas is now 88, two reduced municipalities and one new town (Talagang) having been added, and 16 abolished. The notified areas contain 337,000 inhabitants with 418 members.

Elections.

140. Last year's remarks hold good, and many elections are decided in private before the polling begins: on the whole the interest aroused seems to be increasing. There is evidence, however, of bribery at elections in Rohtak, and the provisions for annulling the election of candidates found guilty of corruption will have to be enforced where possible. The elective system has

been introduced in two towns in Ferozepore, and proposals for similar action in Lyallpur have been formulated. The restoration of elective rights to Hissar and Bhiwáni is under consideration.

Meetings.

141. On the whole, the number of meetings held during the year was satisfactory, but it is sometimes found difficult to get a quorum in the Canal Colony towns. The absence of the official president is given as the reason of the small number of meetings of one municipality, but there is at present no intention of appointing more non-official presidents.

Working of Committees.

142. The committees of Murree and Ráwalpindi, which have been recently overhauled, are doing better. The trials of certain prominent persons in Siálkot, mentioned last year, have resulted in the conviction of two Octroi Muharrirs for embezzlement and the resignation of the Secretary, and of various other officials, some officials also being dismissed. Another large municipality, Multán, is in a far from satisfactory state : the audit notes reveal irregularities in the accounts, laxity in administration, and insufficiently strict observance of rules, and there is far too much sectarian quarrelling. The latter fault is also found in other committees, in Gurdáspur particularly, and Gujrát. The cases in which proceedings of committees had to be overruled were not numerous or very important.

The working of Committees on the whole is reported to be satisfactory, but the above facts show how impossible it is to relax the supervising control exercised by the executive.

Rules and bye-laws.

143. Byelaws were framed in five towns dealing with the sale of milk and butter, the exercising of ponies, registration of dogs, the use of hackney vehicles for carriage of infectious patients, and a wheel tax.

TAXATION.

General.

144. Octroi is in force in 98 towns out of 104 ; taxes on houses and lands in 11, on animals and vehicles in 14, a water rate in 6, and a conservancy tax in 4 towns. Servants are taxed in four towns and dogs in four. In Batála the frontage tax imposed last year has not worked at all smoothly : after much opposition by interested members the rates were reduced, but even so the opposition continued, and only a small proportion of the tax was collected.

New taxes.

145. A scheme for a terminal tax is being worked out for three municipalities, and in four notified areas a tax based on income was introduced in place of taxation by fixed grades.

Octroi.

146. The income from octroi has risen almost everywhere. In Siálkot the rise amounted to ten per cent. owing to the better supervision recently introduced, and to 19 per cent. in Gurdáspur and Muzaffargarh, for similar reasons. In Gujránwála the new schedules swelled the octroi returns by no less than 56 per cent. increase. Notified area receipts remained fairly steady. The cost of the collection of octroi generally did not rise or fall. It is lowest in Lahore, 4·24 per cent., and not much higher in Gujránwála and Amritsar, but in most municipalities it is 15 to 16 per cent., and in two towns 22 per cent.

Refunds.

147. Refunds of octroi vary considerably throughout the Province. Of the larger towns, Siálkot shows the highest figures with 43 per cent. This matter is being looked into ; Siálkot is becoming a very large exporting centre, and such a large percentage is crippling. In some smaller towns higher figures prevail, and it has been found necessary in some cases to revise octroi limits.

Sanitation.

148. Siálkot suffered from plague, but the efforts of the authorities were regarded with apathy by the people in general. Plague was much less virulent than usual, but small-pox appeared in several places. Drainage schemes in Lahore, Amritsar, Multán, Siálkot, Káwalpindi and Chiniot are being liberally assisted by Government, and projects for water-supply in Amritsar, Ambála, Siálkot and Multán.

Extra-mural lands.

149. The tendency of the more well-to-do to build houses outside the larger towns—such as Lahore, Káwalpindi, Jhelum, Gujrát, Ludhiána—is bringing into prominence the question of suburban town-planning. The whole question was exhaustively discussed (along with general sanitary problems) at a Sanitary Conference held at Simla in August 1913, and certain resolutions were passed which are now being considered by Government.

26.—Military (Volunteers).

Strength and Distribution of Volunteer Forces.

150. The strength of the Volunteer Corps on the 31st March 1913 is reported to have been as follows:—

Corps.	Company.	Station.	Officers.	Non-Commissioned Officers.	Privates.	Total enrolled strength.	Total number of efficients.	Sergeant-Instructors.
Punjab Light Horse.	...	Field Officers and Staff	7	...	...	7	7	4
	A	Lahore	4	20	99	123	121	...
	B	Ambála	1	5	50	56	55	...
	C	Ráwalpindi	3	9	50	62	61	...
	D R½	Peshawar	1	2	11	14	12	...
	D L½	Amritsar	1	3	12	16	10	...
	Detachment	Delhi	...	5	24	29	27	...
	E	Lyallpur	...	3	16	19	15	...
	E	Multán	...	...	4	4	4	...
	E	Jhang	...	...	2	2	...	...
	E	Sargodha	...	...	2	2	1	...
	E	Montgomery	...	1	6	7	7	...
	...	Reservists	1	...	71	72	72	...
	...	Add for Supernumerary Officers ...	11	...	...	11	...	...
		Total ...	29	48	347	424	392	4
1st Punjab Volunteer Rifle Corps.	...	Field Officers and Staff	10	...	...	10	10	9
	A., B., C. and Cadet ½ Company.	Lahore	7	36	196	239	232	...
	D	Ráwalpindi	3	12	115	130	129	...
	E	Amritsar	4	10	53	67	63	...
	F	Delhi	1	9	72	82	78	...
	G	Murree	2	6	67	75	74	...
	H	Do.	...	9	64	73	73	...
	I	Peshâwar	4	16	111	131	131	...
	K	Ferozepore	3	12	89	104	104	...
	L	Srinagar	4	7	59	70	67	...
	M	Siálkot	2	7	49	58	57	...
	...	Reservists	...	...	68	68	65	...
	...	Add for Supernumerary Officers ...	15	...	...	15	...	...
		Total ...	55	124	943	1,122	1,083	9
Simla Volunteer Rifle Corps.	...	Field Officers and staff	8	...	...	8	8	3
	A., B., C., D., E and H	Simla	16	60	393	469	418	...
	F and G	Sanáwar	4	12	166	182	178	...
	...	Reservists	2	...	74	76	56	...
	...	Add for Supernumerary Officers ...	20	...	...	20	...	...
		Total ...	50	72	633	755	660	3
North-Western Railway Volunteer Rifle Corps.	...	Field Officers and staff	11	...	...	11	11	5
	A., B., C and D	Lahore	10	42	514	566	559	...
	E	Ambála	2	9	138	149	149	...
	F	Saháranpur	2	7	142	151	144	...
	G	Ráwalpindi	3	15	135	153	152	...
	...	Reservists	...	...	30	30	24	...
	...	Add for Supernumerary Officers ...	2	...	...	2	...	...
		Total ...	30	73	959	1,062	1,039	5

The Punjab Light Horse, the 1st Punjab Volunteer Rifles, and the North-Western Railway Volunteer Rifles were inspected in February 1913 and the Simla Volunteer Rifle Corps in May 1913.

The results were considered satisfactory.

CHAPTER IV.

PRODUCTION AND DISTRIBUTION.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below:—

PROVINCIAL REPORTS.

Agriculture.—(1) Report on the operations of the Department of Agriculture, Punjab, for the year ending June 30th, 1913.

(2) Annual Report of the Punjab Veterinary College and of the Civil Veterinary Department, Punjab, for the year 1912-13.

(3) Annual Report of the Government Cattle Farm at Hissar for the year 1912-13.

(4) Report on the Land Revenue Administration of the Punjab for the agricultural year ending 30th September 1912.

(5) Report on the working of Co-operative Credit Societies for the year ending 31st March 1913.

Weather and Crops.—(1) Report on the weather of the Punjab for the year 1912-13.

(2) Punjab Season and Crops Report for 1912-13.

Horticulture.—Report on the Government Agri-Horticultural Gardens, Lahore, for the year ending 31st March 1913.

Forests.—(1) Progress Report of Forest Administration in the Punjab for 1912-13.

(2) Report on the Administration and Accounts of the District Boards in the Punjab for the year 1912-13.

No special report on arboriculture was issued during the year.

Manufactures.—Report on the working of the Factories Act in the Punjab during the year 1912.

Trade.—(1) Report on the Internal Trade of the Punjab by Rail and River for the year ending March 31st, 1913.

(2) Report on the External Land Trade of the Punjab for the year 1912-13.

(3) Report on the Joint-Stock Companies in the Punjab for the year 1912-13.

Public Works.—Administration Report of the Public Works Department, Punjab, Buildings and Roads Branch, for the year 1912-13.

Irrigation.—(1) Administration Report of the Public Works Department, Punjab, Irrigation Branch, for the year 1912-13.

(2) Land Revenue Report as above.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Agriculture.—(1) Statistics of British India, Part II, Commercial (Co-operative Credit Societies).

(2) Administration Report of the Army Remount Department in India for the year 1911-12.

Crops.—(1) Agricultural Statistics of India, volume I, tables 2-I and 3-I.

(2) Area and yield of certain principal crops in India.

(3) Prices and Wages in India.

(4) Variations in Indian Price Levels, 1913.

Forests.—Statistics of British India, Part IV (*b*), Finance and Revenue.

Mines and Quarries.—
(1) Statistics of British India, Part I, Industrial.
(2) Records of the Geological Survey of India, volume XLIII, Part 2.
(3) Report of the Chief Inspector of Mines in India under the Indian Mines Act (VIII of 1901) for the year ending 31st December 1912.

Manfactures.—Statistics of British India, Part I, Industrial.

Trade.—(1) Accounts of the Trade carried by Rail and River in India.

(2) Statistics of British India, Part II, Commercial (Joint Stock Companies).

Railways.—Administration Report on Railways in India for the calendar year 1912.

Irrigation.—Statistics of British India, Part III, Commercial Services.

27.—Agriculture.

SCIENTIFIC.

Research and experiment.

151. Valuable work continues to be done at the Lyallpur and Gurdáspur Stations, where varietal experiments have confirmed the results of previous years, Pusa wheats being again shown to be unsuitable for the Punjab. Different treatments of tillage of wheat showed that rolling the ground after sowing gives no advantage, and bone meal is unprofitable, but deep ploughings give better results than shallow. The wheat survey was carried on in Hoshiárpur, Gujrát and Lyallpur Districts, and one type of wheat is found to predominate in Lyallpur, while two others are commonest in the former districts. All three are excellent Punjab types, and the selection of types suitable for distinct localities is now made possible by the survey as it goes on. American cotton is now firmly established in Lyallpur and Jhang, and will probably succeed in Shahpur too. The yields were heavy in the year under report, and the demand for American seed outran all supplies in sight, and with a good year following, seed for some 10,000 acres will probably be available. At the same time the bulk of the Punjab cotton crop will always consist of one of the short-stapled indigenous varieties, and suitable varieties will be selected and multiplied locally. Land for a large cotton farm has been selected at Hánsi. The boll-worm parasite was successfully hibernated, a result which constitutes a long step in advance towards the protection of cotton crops from insect pests. The analytical survey of sugarcane in Gurdáspur was continued, and the effect of frosts on the cane was observed; certain canes were shown to be frost-resistant, which is an important quality in the Punjab. The Agricultural Chemist, Mr. Barnes, when on leave last year, was deputed to Hungary and Egypt to study the manufacture of sugar from beet and cane in those countries, and his report will be a valuable one when it comes out. Investigation was also extended to the preservation of stored wheat from weevil, the lateral movement of *reh* salts, and the rise of water level in the Chenab Colony.

Pests.

152. The cotton crop of 1912 did not generally suffer from boll-worm attacks. Most of the cotton areas had good monsoon rains, which destroyed the early broods of boll-worms. In the Jhelum and Chenab Colonies and in Multán, however, the rains failed and the percentage of boll-worm attacks was fairly high (from 16 to 32 per cent.) during July and August. The parasite (Rhogas Lefroyi) appeared at the Lyallpur farm in the end of July and was established in the parasite breeding plot, and in August boxes of parasites were distributed throughout the Province and materially aided in keeping down boll-worm. The cause of root-rot in cotton, which causes so much damage, was discovered in the year under report, to be due to a nematode worm. Special attention was paid also to beetles and grass-hoppers. The results obtained by cutting out "dead hearts" of sugarcane, in order to combat the moth-borer, were very satisfactory; the simplicity of the method appeals to the zamindar.

Demonstrations.

153. Three demonstration plots were started in Jullundur to show the methods of dry farming, which are recommended by the department, in the zamindars' own fields: the demonstrations were on the whole successful. Some 20 acres of land in the Attock District will also be taken on lease for the same purpose. Demonstrations of implements were carried out in Gujrát, Montgomery, Lahore, Hoshiárpur, Hissar and Gurdáspur Districts. The 48 chain harrows distributed were not thoroughly tried by the zamindars; bullock-hoes for cotton and maize were under trial; reaping machines were used with good results, which will be still better when the practice of hiring them out is established; and a steam thresher was shewn in working at Lyallpur fair. Agricultural associations were started in six districts for the purpose of disseminating knowledge and implements alike, and if combined with the co-operative movement, this sphere of activity promises valuable results. Working

in the same direction, an agricultural co-operative conference was held at Lyallpur and attended by some 300 persons, who saw and discussed the work being carried out on the Government farms.

Agricultural engineering.

154. Well-boring has not been so successful as other activities of the Department; yet 216 wells were bored and the water-supply increased in 116 wells, and 11 out of 14 trial borings found water. The Agricultural Engineer when appointed will probably effect a revolution in the extent and results of the operations.

Olives.

155. No progress has been made at Sakesar, and it is proposed to hand over the work of guarding existing olives there to the Forest Department. At Khairi Murat there are 4,000 grafted trees on about 80 acres of land, half of which was cleared during the year, and 2,000 trees grafted. At Gandalla work was begun on 10 acres of cleared land, by planting olive trees from Lahore and Choa Saidan Shah gardens: 40 acres of olive jungle have been cleared of other growth. Almonds will be inter-planted, so as to reap a profit while the olives grow up. The expenditure was Rs. 7,474 in all.

Poultry.

156. Poultry at Lyallpur have not succeeded owing, it is reported, to the bad climate. The central poultry station at Lahore, in the Zoological Gardens, seems to have had better results, and there are now 160 chicks on the farm, the demand for pure bred chickens and eggs being on the increase.

Sericulture.

157. The results in Gurdáspur, in which district alone is sericulture established, were not satisfactory owing to the ignorance and slovenliness of the rearers; but a step forward has been taken outside that district, by having the rearings carried out by villagers in their own homes instead of by canal officers, thereby achieving a demonstration open to the surrounding villages. Most of the rearers in this case had never seen a silk worm before, and the results were surprisingly good in the Rúpar and Kasúr Tahsils. Sericulture will be improved next year by measures taken to secure even and early hatchings, and promises to the poorer peasants a way of earning Rs. 30 to Rs. 40 by six weeks' work.

Smyrna figs.

158. Twenty Smyrna fig trees are now established at Lyallpur, which were sent out by Lieutenant-Colonel Henderson, late I.M.S., and are doing well. It may, however, be necessary to import blastophaga from Smyrna to ensure fertilisation.

Dates.

159. Five plantations were established in 1910 and 1911 where over 2,000 trees were planted, of which 1,107 survive: last year another plantation of 808 trees was started in Leiah and many gaps were filled up in the older plantations. Altogether 5,166 trees have been imported and no more are now being received, as it is advisable to ascertain how those already planted promise to turn out and which varieties are most suitable. 95 trees bore fruit this year, much earlier than was expected, and the Economic Botanist is identifying the varieties as far as possible. The Arab date-grower has completed his term of three years and gone home. Enquiries show that the crop of date fruits of the Punjab is only worth about Rs. 12 lakhs per annum, which can be increased five-fold by merely substituting moderately good trees for the inferior female ones, and for male trees which are not wanted if hand pollination is resorted to.

Loans to Agriculturists.

Advances made.

160. Advances rose considerably during the agricultural year ending September 30th, 1912, as was natural in a dry year, but recoveries were good. Loans amounting to rather over 2 lakhs were advanced under the Land Improvement Loans Act, and nearly 6 lakhs under the Agriculturists' Loans Act. Nearly 17 lakhs under both Acts were outstanding from previous years, making a total of 25 lakhs. Five-and-a-half lakhs were due for collection

during the year, of which some Rs. 5,30,000 were collected. The outstanding balance at the close of the year was rather over 19¾ lakhs, more than half a lakh of which was suspended by competent authority and some Rs. 29,000 were overdue. Interest due for collection amounted to Rs. 1,23,000, all of which was recovered with the exception of some Rs. 3,300. The loan operations during the year gave a profit to the Local Government of rather over half a lakh.

Under the Land Improvement Loans Acts, the Multán Division took nearly ¾ths of a lakh, the Ferozepore District more than half a lakh, and the Attock District Rs. 15,500. The amount of loans under this Act still out is large in the following districts :—Gurgaon 1½ lakhs, Attock over 2 lakhs, Multán nearly 3¾ lakhs, and Muzaffargarh rather over one lakh. The reports of Deputy Commissioners show that the improvements for which the loans are granted receive on the whole a thorough inspection.

Progress has been made in the preparation of district reports dealing with the advisability of well-boring operations and the necessity for takkavi.

Only about Rs. 64,000 out of the 6 lakhs distributed as loans under the Agriculturists' Loans Act for cattle and seed were required in the Delhi and Jullundur Divisions. The scarcity of fodder was acute in Siálkot, Gujránwála and Montgomery and in all districts of the Ráwalpindi Division except Ráwalpindi. The Commissioner of that division remarks that a very large proportion of the money advanced was for the purchase of fodder, and it is satisfactory that so small a proportion of the demand had to be suspended.

Co-operative Societies.

General.

161. Expansion is still the chief feature of the co-operative movement. Agricultural societies increased during the year by 62 per cent., their working capital by 72 per cent., and their members by 45 per cent., on last year's figures. They now number 2,780, and it is hardly a matter of surprise that an Assistant Registrar has been appointed. Five new central banks were opened, and three unions, all of the latter, however, being in one district. The central banks and unions control Rs. 28 lakhs of net capital, and the agricultural societies over Rs. 80 lakhs net. This progress has been made at small additional cost to Government, each society costing Rs. 11 or Rs. 12 a year against Rs. 51 four years ago. Sub-Inspectors paid by the societies increased from 6 to 20 during the year.

Central banks and unions.

162. The five new central banks are all in important districts from a co-operative point of view. More than half the working capital of the 17 central banks is derived from members : they lent out Rs. 11 lakhs during the year, and only about 3 per cent. of the outstandings is shown as overdue. Banks started three years ago are already paying 10 or 12 per cent. The three new unions are all in Gurdáspur : the stage of federation has not yet been reached, and central banks and unions are still almost entirely financing agencies.

Agricultural societies.

163. The capital held by the agricultural societies has grown faster than the number of members and societies, and now Rs. 75 is available per member against Rs. 63 last year. It is derived from share capital and profits 34·4 per cent., deposits by members 17·7, and by non-members 20·9 per cent., while loans from central societies take up 26·2 per cent. Government loans have dwindled from 1·5 to 0·7 per cent. Outside loans have risen considerably owing to the larger number of societies started, to borrowings by the older societies for payment of old debts, and to purchase of proprietary rights in the canal colonies. Shares are becoming more and more non-returnable. This is the result of increasing confidence in the societies, and at the same time all new societies are obliged to agree to this condition.

A disquieting feature is the large proportion of loan repayments which are admittedly overdue, the danger of which to the societies is obvious, and is being carefully watched by the rather insufficient inspecting staff. The amount overdue is shown as 16 per cent. of the loans.

Non-agricultural societies.

164. In this branch of co-operation the Punjab still lags behind. There are now 31 societies, with 2,973 members and Rs. 2½ lakhs of capital. The conditions (among weavers at any rate) are more complicated and difficult to deal with than those of rural societies, involving as they do the handling of material and the subversion of older methods. Societies on the model of German Popular Banks would seem to have a fair prospect of success. Some of the non-agricultural societies are doing very well, such as the Credit and Store Society of the Police School at Phillaur, and of the New Egerton Mills at Dháriwál, and the credit society formed in the 7th Lancers at Ferozepore.

Army Remount Department.

Imperial.

165. The figures of purchases from the Canal Colonies during 1911-12 are striking. Out of 593 country-bred horse stock bought by the Department, 539 were got from the Punjab, and of these 411 from the Jhelum Canal Colony (as compared with 370 last year)—182 of which were sired by Arab, 96 by Australian, 96 by thorough-bred English, 30 by country-bred and 6 by stud-bred stallions, and only one sire was untraced. The *abadkars* are the backbone of the scheme. In the Chenab Colony the figures of young stock bought for British and Indian Cavalry, and of mules, have risen in the last seven years from 7, 4 and 29, respectively, to 66, 59 and 774, the improvement being continuous and rapid. The Mona Horse Stud has been closed owing to the lack of good country-bred mares: the stock is being disposed of. Out of 331 horse stallions at stud, 247 were stationed in the Punjab. The stock from thoroughbred English do best in the show-ring and next come stock from Australians. Out of 333 donkey stallions, 288 were in the Punjab.

Provincial.

166. District pony stallions numbered 166, 109 of which were Arabs, 3 stud-bred and 13 country-bred. Seven donkey stallions out of 8 were removed and one left at Ráwalpindi. The work done by the pony stallions has increased from 8,849 coverings to 9,877, the produce from 2,722 foals to 2,991, while the percentage of foalings has risen from 33·66 to 34·25.

Horse and donkey fairs.

167. There were eleven fairs at which officers of the Department attended. All the fairs were successful, except that held at Dera Gházi Khan, where lack of fodder prevented many animals coming. The Pindi fair showed an increase of entries in spite of the bad year, but there was no young stock fit for remounts. In Gujrát the Deputy Commissioner is discouraging the keeping of private stallions, a practice which impedes horse-breeding in the district. In Lyallpur a very successful fair was held, 50 per cent. more horses, mules and donkeys being brought in than last year while a record entry competed for prizes. The Sharakpur Tahsil is becoming a great centre for horse-breeding, and the attendance at the Háfizabad fair increased from 2,855 last year to 6,145 horses, mules and donkeys, while the entries for prizes amounted to 352 as compared with 488. In Shahpur the smaller breeders are getting a better chance, the richer men having gone to the Canal Colonies.

In all Rs. 17,708 was awarded in prizes at horse and donkey fairs, and of this the Imperial Government provided Rs. 14,600, the Provincial Government Rs. 3,260, Local Funds Rs. 243, and private subscriptions Rs. 80.

Veterinary and Live-stock.

Civil Veterinary Department.

168. No decision has been arrived at with regard to the proposals made to create Deputy Superintendents, increase the number of Veterinary Inspectors and Assistants, and to extend the College course.

The number of hospitals increased by 4 to 113, at which 270,889 cases were treated against 241,291 last year.

Contagious diseases.

169. Twenty-eight thousand one hundred and twenty-five deaths were reported from contagious diseases against 25,455 last year. There was a large number of outbreaks and the policy of taking fees for inoculations was unsuccessfully tried this year, with the result that inoculations decreased from 32,096 last year to 18,335. This policy has now been discontinued.

The Chief Superintendent spent some time investigating the causes of a contagious pneumonia among *gaddis'* flocks in Kángra, Chamba and Mandi. Goats only are affected, and the disease is aggravated by the daily march which is enjoined by regulations. Diseases to the feet caused by injuries from hill-climbing were also investigated and treated.

Cattle-breeding.

170. Cattle-breeding will always be handicapped until the letting loose of brahmini bulls is brought under control: this might be done by co-operation between District Boards and donors. Some Boards purchase bulls for Rs. 200 and sell to responsible men for half the price: and in time agricultural banks will no doubt be called in to aid in the important work of bull distribution. The stud bulls at work increased to 544.

Horse-breeding and shows.

171. Sixty-eight horses and pony-stallions were at work in non-selected districts and 74 donkey stallions. Covering registers show satisfactory work and are being more carefully kept, and the Department is endeavouring to get more information regarding the young stock produced. Horse-shows were held in six districts during the year and cattle fairs in 19 districts.

Wool.

172. The Merino rams now number 12 with 25 ewes. Merino sheep-breeding now looks more promising, and has been taken up by three districts and the Mamdot Estate. The Kángra and Kulu breeding is growing more popular.

GOVERNMENT CATTLE FARM, HISSAR.

General.

173. In consequence of the abolition of the Inspector-General, Civil Veterinary Department, the control of the Government cattle farm was transferred to the Provincial Government, and is now worked under the Chief Superintendent, Civil Veterinary Department.

For the second year in succession the farm has suffered from shortage of fodder owing to partial failure of the monsoon and to insufficient canal supply of water: an experiment with a tube well is to be carried out. Lower wages due to local scarcity have been counterbalanced by increased expenditure on stall-feeding. The cattle have been kept healthy owing to the excellent system of rotation of crops, and outbreaks of disease were checked. The farm does not pay its way, there being a large deficit on the year's working, and some change in the pricing of animals issued will probably be necessary. At the same time the revision of the establishment bill is before Government. The quinquennial valuation committee have added Rs. 1½ lakhs to the value of live-stock.

Cattle-breeding.

174. Ninety-two bulls were issued to District Boards, which is a record figure. Only 623 calves were born during the year, which is the lowest amount for some years: this is due to poor seasons. The number of cows is approaching the sanctioned scale of 1,500 which will have to be increased to 2,000 if the demand is to be met. One hundred and twenty-five siege-train bullocks were issued to the Military Department.

Mule and donkey-breeding.

175. Twenty-eight mules were issued to the Military. There was no change in the number of donkey stallions. Eighteen donkey colts were sold.

Sheep.

176. The sheep did well on the whole, and the experiment of making a pure bred Merino ram with half-bred ewes seems to have very successful prospects.

28.—Weather and Crops.

177. Winter conditions were prolonged into April, and the monsoon arrived late. May and June were dry and the monsoon came in heavy showers on July 9th—13th and again from the 16th—21st. The result was that though the July average was below normal in most districts, nearly normal sowings were made on unirrigated land. In August there were some heavy downpours, and more than the average amount of rain fell over a large part of the Province, but this only lasted till September 3rd for the western half, the eastern half benefiting till September 27th. The result was that young cotton and cane did well in the April rains, irrigated cotton was favoured by the total moderate rainfall, and cane by the copious showers in July and August. The unirrigated crops suffered somewhat by the fitful character of the monsoon. Bollworm threatened at the end of July, but was washed out of the cotton in August. Weather in 1912-13.

Autumn sowings were restricted in the western unirrigated tracts by the early cessation of the rain which did not recommence till late November when further seed was put in. January and the first half of February were dry, but the standing *barani* crops were saved by good rains later on in February and in March. All crops benefited by this timely precipitation, except that in parts pollination of wheat was interfered with, shrivelled grain resulting. The unusually dry weather from October to January reduced the yield of unirrigated crops, but the absence of frost was favourable to cotton and cane. In parts of the Central and North-West Punjab fodder was very scarce between December and May, and large quantities were imported from districts where there was a surplus.

178. The statistics for the year's crop are as follows :— Crops.

	1911-12. Acres.	1912-13. Acres.	Normal. Acres.
Total sown area	26,098,955	27,510,022	28,162,715
Failed	4,786,038	4,826,154	4,855,828
Matured	21,312,917	22,683,868	23,306,887

Thus, as far as statistics go, the year was a considerable improvement on its predecessor, and was only slightly below normal. The harvests will be reviewed separately in the succeeding paragraphs.

179. The total area sown was approximately normal both for the whole Province and by divisions. Owing to the late arrival and early cessation of the monsoon, an unusually large proportion of the sowings were irrigated. Kharif 1912.

Twenty-four per cent. of the sowings failed, the failure being nearly all on unirrigated land in the south-east, south-west and north-west. The highest percentages of failure were in Gurgaon and Dera Gházi Khan (27 per cent.), Rohtak and Multán (31 per cent.), Hissar and Ráwalpindi (41 per cent.), Jhelum (42 per cent.), and Attock (46 per cent.).

In Gurgaon the failure was due to floods, and in Multán and Dera Gházi Khan to the poor flowing of inundation canals, while in the other districts it was due to scanty September rainfall.

180. The sown area was only 4 per cent. below normal, a deficiency of 14 per cent. in the unirrigated area being counterbalanced by an excess of 10 per cent. in the irrigated area. Thirteen per cent. of the total sown Rabi 1913.

area failed, the percentage on unirrigated land amounting to 21. Hissar and Rohtak in the south-east dry area and Jhelum and Ráwalpindi and Attock in the north-west dry area fared badly in this as in the kharif harvest.

Chief staples.

181. Rice rose to 108 per cent. of the normal, owing to the large proportion irrigated: jowar and bajra are mainly unirrigated crops and suffered in some districts from the early cessation of the rains; on the whole however 82 per cent. of jowar and 95 per cent. of bajra matured. Maize was just short of the normal. Sugarcane was largely fed to cattle owing to scarcity of fodder in parts of Amritsar, Siálkot, Gujránwála, Gujrát and Shahpur, so that in spite of a favourable season the yield of *gur* was only 95 per cent. of the normal. Cotton did well, 79 per cent. being irrigated, and though the unirrigated portion was everywhere poor, the total production was one per cent. above the normal. The season was favourable also for irrigated wheat, which was a little more than half the total crop: but in the north-west dry area, where it is of most importance, the drought was too prolonged. The total yield is estimated at 19 per cent., while that of gram was 5 per cent. above normal. Gram, four-fifths of which was unirrigated, is better able to withstand drought than other spring crops, such as barley, which fell 15 per cent. below the normal. Export of Indian barley has decreased, but it had already obtained a good footing abroad. The area under rape and toria decreased from 1,447,709 to 887,781 acres, all due to short sowings of *barani* rape, and crop-cutting for fodder. Irrigated toria is estimated at 106 per cent. of the normal, but this figure was brought down by *barani* failure to 84. The previous estimated yield per matured acre of rabi oil-seeds was low, and at the recent revision it was raised by about 56 per cent.

Irrigated area.

182. The total irrigated area was 11,589,775 acres, being above the normal at both harvests. Of this area, 3,601,882 acres were irrigated from wells, and most of the remainder from canals.

Prices.

183. The year was a favourable one for the farmer, as the harvest prices of the most important crops—wheat and cotton—rose even higher than in 1912. The average price per maund of wheat was Rs. 3-1-0 as compared with Rs. 2-15-0 in 1912, and of cotton Rs. 7-15-0 as compared with Rs. 7-10-0. The prices of barley, gram and rabi oil-seeds were steady, and the only valuable crop which fell in price was cane, the price of raw sugar having dropped seriously from Rs. 5-6-0 to Rs. 4-7-0 per maund. Jowar, bajra and maize are produced almost entirely for food, and the price of the two former fell, while that of maize was steady. From the point of view of trade the year was a prosperous one. Stocks of grain were reported to be sufficient everywhere, except in Jhelum and Ráwalpindi, where three out of the last four harvests have been poor.

29.—Horticulture.

Agri-Horticultural Gardens, Lahore.

184. The improvement of the gardens was continued during 1912-13, and, though the expenditure rose, this was due to non-recurring outlay on lining water-courses; while the sales of garden produce realised Rs. 748 more than last year. Government contributed Rs. 3,000 for minor works in addition to the usual grant of Rs. 13,000. The watering of pot plants is now done by the students, and thereby 26 bhisties have been dispensed with. The mali classes continue to be successful, and the boys have increased to 26. A chaudhri class was started with two of the most intelligent boys. A list of the trees grown has been published with a map to show their situation, in order to assist botany students. Special attention was paid this year to clearing ground for an orchard; peaches from the garden sold well, and peach trees will be put down in the orchard, which will be more easy to supervise than the present scattered collection of fruit trees. A working plan has been drawn up for the next five years. Arrangements have been made for a larger and more continuous display of flowers: roses have been planted out in large beds. The eucalyptus experiments were continued, seeds of 90 new species and varieties being planted and about 15,000 young plants distributed from the gardens.

30.—Forests.

Forest Department.

General.

185. A short Act to regulate the establishment of timber depôts and the sale of timber on Punjab rivers was passed by the Provincial Legislative Council and assented to by the Governor-General in Council during the year. It is designed to reduce theft of timber in transit. Government has also reverted to the old practice of associating the Financial Commissioner with important questions of forest administration, and now such cases are either referred to him for opinion or sent through him to Government by the Conservator. This procedure has had good results already in connection with the measures taken to stop forest fires in Ráwalpindi. A definite scheme has also been drawn up by consultation between the Financial Commissioner, the district officials and the Forest Department to restrict excessive grazing in Kángra.

Alteration in area.

186. There has been a net reduction of 4,687 acres in the area of the Punjab Circle, which is almost entirely due to the transfer of 2,458 acres to the Canal Department in the new colonies, the abandonment of 1,763 acres in Kángra and Bashahr to cultivation, and the loss of 555 acres due to rectification of boundaries chiefly in Shahpur. The change in the boundaries of Shahpur and Gujrát Districts has also necessitated a redistribution of forest land in the Shahpur and Chenab Divisions. Measures are being taken to disforest large areas in the Chenab, Montgomery and Multán Forest Divisions with a view to the colonization of the areas under the new canals.

Forest settlements.

187. In Lahore Division Rakh Tera, of 408 acres, was declared a reserved forest. Settlements of areas for irrigated plantations in this and the Multán and Montgomery Divisions are proceeding. In Ráwalpindi the new revised *guzara* rules for the withdrawal of official control were issued. In Kángra an important point has been decided, with regard to closure of over-grazed areas, and in future such closures will be made much more freely than in the past. Fees have also been fixed for all animals grazing in protected forests in Kángra and will be levied along with the new land revenue. At the same time proposals for the abandonment by the Department of certain detached forest areas are under consideration, and the situation in this district should improve in the near future. The settlement of the Kángra jagirs is proceeding.

Working plans.

188. The group system has not yet been adopted; its working in Chamba and Pabar forests is being watched. No new working plans for departmental forests were prepared or sanctioned during the year. The plans for Subáthu Cantonment and Madhan State have been accepted by the authorities concerned, and a revised plan for the Dalhousie Range forests in Chamba submitted to the Inspector-General of Forests. The draft working plan for the Dharmsála Municipal forests has been received from Dehra Dun College. Owing to the unfortunate illness of Mr. Gibson, the plan for the Pabar forests in Bashahr is not yet ready. The plan for Kángra will have to be revised at an early date by a special officer when available, and plans will be needed for the areas allotted to Sillahdar Camel Corps in Ráwalpindi and Jhelum. The revision of the working plan for the Murree-Kahúta forests in Ráwalpindi has been taken up by a special officer.

Protection of forests.

189. Forest offences have increased to 9,956 from 9,250 last year, owing to more illicit grazing and felling. Fire cases decreased owing to the early rains in 1912. Powers of Forest Officers have been extended under sections 67 and 71 (*b*), (*c*), (*d*) of the Forest Act. The question of including fine as well as compensation for damage done in compounding for offences has been raised in Ráwalpindi and Kángra. In the former division, a half company of soldiers in two parties was stationed at Patriáta and Banni with

salutary moral effect, and the punitive closures proposed on account of incendiarism were sanctioned and brought into force during the year. The department have started protective firing of chil forests in Murree, an experiment which is being watched with interest by officials and people alike.

Areas, which would otherwise have been closed, were thrown open to grazing, particularly in Ráwalpindi, but not on the whole to so great an extent as last year. The number of cattle impounded increased largely, owing to big seizures in the Lahore unclassed forests.

The question of abolishing rights of lopping blue pine in Kulu is being considered, with a view to checking the growth of fungus Trametes pini which is causing extensive damage.

Reproduction, natural and artificial.

190. The year was a good seed year for deodar and blue pine, but the autumn drought killed shisham and other seedlings in the plains. Coppice reproduction was generally good. In the Pabbi Reserve natural regeneration has been obstructed by drought, but the early rains of 1913 were favourable to sowing operations which were conducted on the trench and ridge system. On the irrigated plantation at Kot Lakhpat Rs. 17,903 was spent, and a revenue of Rs. 3,750 obtained from various sources. The canal supply is uncertain, and progress is not very satisfactory as yet. Eight miles of wire-fencing were completed and 281 acres sown up with shisham. Work was begun at Chichawatni plantation in Montgomery. Good progress is reported from the Sandhar forest in Kulu where 31 acres were sown with deodar, blue pine and fir.

Experiments.

191. The experiments at Chánga Mánga are being continued, and have given useful results. Observations of sample plots which have been maintained since 1909 have shown that the growth of coppice shoots from untrimmed stools is in no way inferior to that from trimmed stools. It is therefore proposed to abandon the practice of trimming the stools in Chánga Mánga in future. An enquiry into the causes of the failure of shisham seedling regeneration has been started, and in connection with the Forest Conference, into the failure of natural regeneration of deodar, which is of great importance in the hill forests. The eucalyptus seed at Simla was unfortunately destroyed by fire.

Resin.

192. Further efforts were made during the year to improve the quality of turpentine produced from chil resin with some success, as the introduction of a catch still at the suggestion of the Forest Chemist at the Forest Research Institute raised the quality very considerably. The latest pattern of distillery in use in France is about to be introduced into the Punjab, when it is anticipated that a quality of turpentine fully up to standard demanded by the Railways and other large consumers of turpentine will be produced. The experiments regarding the freshening period of the blazes made for the extraction of resin confirm last year's results and go to prove that a short freshening period is economically sound. Until methods have stood the test of time the resin industry will remain in departmental hands, particularly the tapping of trees.

Outturn.

193. The total outturn of timber for the year was 7,912,484 cubic feet as against 4,108,232 cubic feet during 1911-12, an increase of 3,804,252 cubic feet, which occurred in Ráwalpindi, Kulu and Bashahr Divisions. In Ráwalpindi arrear and advance sales of last year and next year were included and in Bashahr an adjustment was made of the royalty due from the Sutlej Forest Company on account of trees cut last year. In Kulu the increase was due to greater activity in carrying out improvement fellings and thinnings.

The total outturn of firewood was 16,013,229 cubic feet solid as compared with 16,404,152 cubic feet solid extracted in 1911-12, a decrease of 390,923 cubic feet, due to a smaller quantity of firewood being cut in Lahore Division where a large stock from the previous year's felling was on

Chapter IV. PRODUCTION AND DISTRIBUTION.

hand. Of the total outturn of timber 26·55 per cent. came from Reserved Forests, 41·03 per cent. from Protected Forests, 3·47 per cent. from the Unclassed Forests and 28·95 per cent. from the Leased Forests. Of the firewood 27·41 per cent. came from Reserved Forests, 49·05 per cent. from Protected Forests, 8·95 per cent. from Unclassed Forests and 14·59 per cent. from Leased Forests. The total value of minor produce was Rs. 23,50,858 as compared with Rs. 23,45,242 in the previous year. Of the total 11·76 per cent. came from Reserved Forests, 50·43 per cent. from Protected Forests, 2·85 per cent. from Unclassed Forests and 34·96 per cent. from Leased Forests.

The policy pursued this year of selling marked trees standing resulted in a decrease by half in the amount of timber extracted by Government agency in Ráwalpindi, Kulu and Lahore.

194. The total imports were 5,103,283 cubic feet against 7,810,078 cubic feet in 1911-12 and 6,235,327 cubic feet, the average of the three previous years. The decrease occurred chiefly under deodar sleepers on the Chenab and Jhelum rivers. **Imports.**

195. The revenue rose by two lakhs from Rs. 10½ to Rs. 12½ lakhs: at the same time the expenditure only rose by Rs. 30,000 to Rs. 8,09,072. The larger revenue was mainly due to sale of deodar trees in Pálampur and trees obtained from improvement fellings in Kulu, and better sales of firewood and charcoal in Lahore. **Financial.**

ARBORICULTURE.

196. The triennial report is not due till next year.

31.—Mines and Quarries.

197. There are 9 coal mines in the Punjab which come within the scope of the Indian Mines Act, 1 having been closed down during the year—5 in Jhelum producing 33,192 tons, and 2 each in Shahpur and Miánwáli turning out 3,617 and 1,600 tons: the output was 25·62 per cent. higher than last year. These mines are all over 20 feet deep and employ 981 persons on a daily average, 592 of whom are men working below, and 373 men, with 16 children, above ground. All the mines are non-mechanical. The four Government salt mines in Shahpur (1), Jhelum (2) and Miánwáli (1) are all worked by hand labour and produced 131,233 tons of rock salt or 6,630 tons more than last year: 970 persons are employed daily, of whom 50 only are men working above ground, and the rest work below—consist of 481 men, 365 women and 74 children. The only serious accidents in Punjab mines occurring in the year took place in these mines, nine people being injured, eight below ground and one above. There were no fatal accidents. The slate quarries have increased to ten, quarrying 7,991 tons of slate, and employing 701 persons: the limestone quarry in Hoshiárpur employs 72 people and turned out 45 tons: the Jhelum limestone is not ruled by the Act and 10,000 tons were produced, valued at Rs. 765. **Indian Mines Act.**

198. The Act does not apply to the following minerals which were produced:— **Other minerals.**

Gold (by washing), 147½ oz., value Rs. 8,741 an increase of Rs. 971.

Petroleum, 950 gallons (this has decreased from 1,400 gallons last year).

Alum, 5,546 cwt., value Rs. 39,405 a decrease of Rs. 2,475.

Gypsum, 1,837 tons, value Rs. 125.

Building stone, value Rs. 1,11,000 approximately.

Saltpetre, nearly Rs. nine lakhs, a rise of a lakh and a quarter.

The production of Mandi rock salt decreased: its value is reckoned at about ¾ ton and the Salt Range salt at nearly 9 tons to the £. Practically all the Indian output of alum comes from Miánwáli.

32.—Manufactures.

Factory Act.

Factories and employees.

199. The factories that came within the scope of the Act this year numbered 234 against 268 of last year, 26 factories having failed to work for the last two years. The 12 Delhi factories will be excluded from next year's report. The number of factories at work during this year was 208 or 11 more than last year (excluding Delhi).

The total number of operatives is returned as 32,865 or 4,681 more than in 1911. Of the increase 2,300 are accounted for in Government factories and 2,500 in cotton-ginning and pressing mills. Of the total number of operatives nearly 15,000 are employed in Government factories and 11,000 in cotton-ginning and other seasonal factories. Thus the permanent factory hands in private employ in the Punjab are (excluding Delhi city) only some 5,000 souls.

The number of women employed is 3,739 and the number of children 846. The number of women will probably increase now that they can be worked in ginning factories by night as well as by day ; and so will the number of children, as those working in the compounds of mills can under the new Act be kept at their tasks throughout the day and need not be certificated. Minor offences in the employment of women and children are common: illegal employment of such a kind as would be likely to endanger life or injure health is rare.

Inspections.

200. Of the factories working during the year 163 were inspected and 45 were not inspected. There has been some diffidence in making inspections owing to the absence of an expert inspector and the condemnation by the Factory Commission of amateur inspections. Inspections nearly always reveal a number of irregularities of all kinds. At the present time the irregularities are specially numerous, as few managers have taken any trouble to acquaint themselves with the new Act and rules. There were three prosecutions only. Government's previous sanction to a prosecution is now not required.

Sanitation.

201. There are good latrines in most factories ; but they are often not cleaned as regularly as they should be, and then they are not used. In many cases the pans are not replaced when they wear out, and this is a matter which requires constant attention. Waste water is seldom led away to any external drain, but is allowed to stagnate at the boundary of the factory precincts.

The general health of the operatives is good. Long continued work in a factory is not customary.

Wages.

202. Wages are generally higher in the factories than outside, and there is no complaint.

Fencing.

203. The fencing of machinery is usually adequate, but repairs and replacements are not carried out as promptly as they should be.

Accidents.

204. There were 264 accidents, 7 of which were fatal, 61 serious and 196 minor : this is normal : most of them occurred in the Railway workshops.

33.—Trade.

Internal rail and river-borne trade.

General.

205. This section deals with the trade of the Punjab and North-West Frontier Province with other provinces, as much as is carried by rail and river. The values are calculated by rates fixed for imports by other provinces and for exports by the statements received from the Municipal Committees of Delhi and Amritsar. The report this year deals with the triennial period from 1910-11 to 1912-13. The first year's harvests were normal, the monsoon of 1911 was disappointing, and the kharif poor, but a good rabi followed in 1912. The monsoon of 1912 was fitful but heavy and cotton and cane were good.

Chapter IV. PRODUCTION AND DISTRIBUTION.

Prices.

206. Prices were approximately normal in 1910-11, except in the case of cotton which touched a record figure : in 1911—13, however, prices ruled high all round, except cane which fell to normal at the close of the period.

Volume of trade.

207. Exclusive of animals and treasure the following table gives the totals of trade during the last two triennial periods :—

		Exports.		Imports.	
		Maunds.	Value, Rs.	Maunds.	Value, Rs.
1907—1910 ...	Total	132,838,574	69,04,09,249	122,235,931	75,17,76,105
	Average	44,279,525	23,01,36,416	40,745,310	25,05,92,035
1910—1913 ...	Total	171,895,435	85,09,39,468	165,168,460	88,40,49,433
	Average	57,298,478	28,36,46,489	55,056,153	29,46,83,144
Total increase or decrease ...		+ 391	+ 1,605	+ 429	+ 1,323 lakhs

In 1912-13 exports amounted to 628 lakhs of maunds, 7 per cent. more than in 1911-12 and almost equal to the record trade year of 1907-08. Their value rose by 16 per cent. to Rs. 3,202 lakhs, the increased value per maund being due to a larger proportion of cotton and wheat in the exports. Imports in 1912-13 amounted to 671 lakhs of maunds as compared with 557 in 1911-12, which was the previous best year on record, and to Rs. 3,176 lakhs in value as compared with Rs. 3,001 lakhs.

Imports.

208. Imported goods forming more than one per cent. of the total imports were—

Article.	Per cent.	Value in lakhs of rupees.	Article.	Per cent.	Value in lakhs of rupees.
Apparel ...	3	94·6	[Iron and steel ...	7·5]	...
Coal and coke ...	3·7	118·	Oils ...	1·9	61·6
Cotton ...	31·9	1,109·7	Oil-seeds ...	1·4	43·9
[Twine and yarn, Indian.	1·3	...	Provisions ...	2·7	88
Foreign piece goods	21	...	Railway stock ...	2·1	68·6
Indian piece-goods ...	10·]	...	Spices ...	1·3	40·4
Dyes and tans ...	1·5	50·6	Sugar ...	15·7	492·5
Gram and pulse ...	3·3	107·4	Wood ...	2·5	81·4
Hides and skins ...	1·5	49·4	Wool ...	1·7	54·6
Jute ...	4·7	149·6	Others ...	2·	73·6
Metals ...	8·1	288·			

Cotton has increased by Rs. 100 lakhs on last year, coal Rs. 54 lakhs, dyes Rs. 3·6, gram and pulse Rs. 9, hides Rs. 11, jute Rs. 43, oils Rs. 5·6, spices Rs. 2, sugar Rs. 122·5 lakhs.

The decreases have been in drugs Rs. 33 lakhs : metals Rs. 40½ : oil-seeds Rs. 10, provisions Rs. 8½, railway plant Rs. 20·4, tobacco Rs. 7, wood Rs. 8, and wool Rs. 24 lakhs.

Chapter IV. PRODUCTION AND DISTRIBUTION.

Imports of coal and coke nearly doubled during the triennium, owing to the industrial development of the Punjab and the fall in the price of coal; the increase on last year is all under the head "for other than railway purposes." Foreign piece-goods have risen by Rs. 372 lakhs during the three years under review, Indian piece-goods by Rs. 220 lakhs, and Indian yarn by Rs. 55 lakhs. The net increase of metals imported has been 38 lakhs of maunds, most of which went to Delhi and the Canal Colonies for building purposes. Kerosine oil fluctuated owing to a rate war, but finished with an increase of 3½ lakhs of maunds and Rs. 29 lakhs in value for the triennium. Owing to better cotton harvests oil-seeds have decreased, but imported sugar has increased with the growing prosperity and the decrease in the production of cane.

Treasure.

209. Nearly the whole of the imports of treasure was in sovereigns and the increase of imported gold for the triennium amounts to no less than Rs. 489 lakhs. During the same period net imports of silver coins decreased by Rs. 280 lakhs and of silver bullion by Rs. 100 lakhs. In addition to taking Rs. 331 lakhs more of imports than the exports, the Punjab absorbed Rs. 1,000 lakhs of treasure during the triennium.

Exports.

210. The more important exports show the following percentages of the total :—

Article.	Per cent.	Value in rupees, lakhs.	Article.	Per cent.	Value in rupees, lakhs.
Apparel ...	2·4	76	Oil-seeds ...	8·5	274·3
Cotton ...	22 5	720·9	Provisions ...	1·1	33
Grain and pulse ...	45·9	1,471·6	Railway plant ...	1·1	37·3
Hides ...	5·5	176	Wool ...	2·2	64·8
Metals ...	2·6	66	Others ...	1	39

Raw cotton forms 83 per cent. of the cotton exports, and wheat 64·4 per cent. of the grain and pulse, while nearly all the oil-seeds are rape and mustard.

Increases—Cotton Rs. 315 lakhs, grain and pulse Rs. 23 6 lakhs, hides Rs. 49·5 lakhs, metals Rs. 8, oil-seeds Rs. 11, provisions Rs. 10, and railway plant Rs. 2·8 lakhs. Wheat and wheat flour rose to 323 lakhs of maunds, which is a record figure. The exports of wheat, for which there is a constant world demand, closely follow the character of the harvest, but the exports of gram and barley depend on a variety of conditions. Gram fell from 137 lakhs of maunds last year to 61 lakhs, though the crop was hardly inferior. Barley rose from 14 lakhs of maunds in 1910-11 to 73 lakhs this year, owing to the sudden demand abroad. India now holds the second place as a barley shipper to the United Kingdom, and the great bulk of this advantage has gone to the tracts east of the Sutlej, and must have substantially benefited poor districts such as Hissar, Gurgaon, and Rohtak. The value of exported cotton has increased during the triennium by Rs. 467 lakhs, hides by Rs. 118 lakhs, oil-seeds by Rs. 369 lakhs, wool by Rs. 60 lakhs.

Decreases—As a result of the decrease in the production of cane, exports of sugar have declined by Rs. 3½ lakhs in value. Salt has increased by 6½ lakhs of maunds, but decreased in value by Rs. 7 lakhs. A large export of salt to the United Provinces has sprung up owing to a reduction of freights.

River traffic.

211. Exports by the river Indus decreased from 23 lakhs of maunds in 1911-12 to 16 lakhs in 1912-13, but the total exports for the triennium rose from 55 to 59 lakhs of maunds. As usual, exports consisted almost exclusively of raw cotton, grain, oil-seeds and timber. Imports in 1912-13

amounted to $2\frac{1}{2}$ lakhs of maunds, or much the same as in 1911-12 and a little more than in 1910-11. The import trade varies very little, and has so far failed to attract to itself the bulky goods, which are brought into the province by rail from Karachi.

Distribution of trade.

212. Karachi now takes 61 per cent. of the Punjab exports (calculated on their value) as compared with 58 per cent. when the last triennial report was written. Exports to the United Provinces continue to decline, amounting to 12 per cent. in 1912-13 against 26 per cent. in 1908-09. Imports from Karachi have decreased from 39 per cent. in 1909-10 to 36 per cent. in 1912-13; imports from Bombay Port are steady at 15 per cent. and from Calcutta decreased from 10 to 8 per cent., while the United Provinces now send us 21 per cent. of our imports, as compared with 18 per cent. in 1909-10. The feature of the distribution of trade between the various blocks within the province is the large increase in exports from the cis-Sutlej tract, which, probably for the first time since the Canal Colonies were fully developed, exported more than the tract between the Sutlej and the Jhelum. This change is due to the European demand for barley and gram, referred to above.

TRADE WITH TRANS-FRONTIER COUNTRIES.

General.

213. This section deals with the triennium 1910-11 to 1912-13, and tables have been compiled showing the figures for imports and exports for the last three triennia. From these it appears that the imports have totalled Rs. 27, 13·4, and 17·7 lakhs, and exports Rs. 8·8, 4·7 and 8·2 lakhs, for the three periods respectively. But statistical changes and errors have affected the returns, and also the establishment of two new trade posts in Lahul and Bashahr.

Trade with Afghanistan.

214. Fluctuations in the trade with Afghánistán appear to be somewhat fortuitous. But higher prices in the Punjab appear to have stimulated the import of all commodities, and especially of *ghi*, hides and wool. "Other fruits," the chief import, have increased by only 3 per cent. in weight, but by 186 per cent. in value, owing to valuable consignments of pomegranates and pistachio nuts in the winter of 1910-11. Leather shoes, rice, cotton piece-goods, iron and sugar are the chief exports and these have all increased largely for the triennium, but neither leather nor piece-goods figure in the returns for 1911-12. The imports for the last three triennia are returned at Rs. 94, 44·9 and 195 lakhs, respectively, and the exports for the same periods at Rs. 247, 49, and 229 lakhs. But comparison cannot be accurate owing to causes mentioned in the preceding paragraph.

Trade with Ladakh.

215. The trade with Ladakh is almost entirely confined to the Kulu route, as, although the bridge at Dankar has been repaired, the approach to it on one side is almost impassable for loaded animals, and so the Spiti route from Simla is not used. Only the last two triennia can be satisfactorily compared:—

Imports.

Goods.	1907-10.	1910-13.
	Rs.	Rs.
Horses and ponies	26,835	46,844
Charas	3,04,300	4,85,520
Raw wool	6,865	40,050
Borax	23,548	3,451
Raw silk	1,77,760	1,04,400

The import of charas is steady in spite of the enhanced duty: the increase of raw wool is due partly to the opening of another trade registration post at Patseo and partly to excess of demand over supply. The trade in borax has declined owing to over-stocking of markets. Silk prefers the Kashmír route.

Exports.

Goods.	1907—1910.	1910—1913.
	Rs.	Rs.
Cotton piece-goods (European)	1,49,800	2,07,790
Ditto Indian	20,280	39,850
Indian Tea	58,000	95,820
Coral	25,278	14,203

The increase in European piece-goods is in value rather than in weight: these goods go *viâ* Kashmír preferably and thence through Leh to Central Asia, while Indian piece-goods stop at Leh. Indian tea exports are improving, and it is probable that Kángra tea-planters will be able to supply a quality of tea that will successfully compete with Chinese brick tea. Coral improved at the end of the triennium.

Trade with Tibet.

216. Imports of raw wool have gone up from Rs. 5·9 lakhs to Rs. 7·4 and of salt from Rs. 7,482 to Rs. 25,192, while borax has declined as in the Ladakh trade. In the period under report the export of silver increased by Rs. 1,92,720, European cotton piece-goods by Rs. 9,785 though the weight decreased, Indian piece-goods declined by Rs. 4,140 in price and also in weight by 78 maunds. Brass and copper shew a vigorous rise from Rs. 7,732 to Rs. 25,085, husked rice from Rs. 2,845 to Rs. 18,039, precious stones from Rs. 6,100 to Rs. 12,720, manufactured silk from Rs. 1,980 to Rs. 11,000, while Indian tea declined in value by about Rs. 2,000. Nearly all the export trade with Chinese Tibet is carried on by the Tashigong and Shipki routes and very little by Kulu. Much of the grain and other articles which pass the Nachar post are consumed in Kanawar and do not go on into Tibet. But there has been a real rise in exports, owing to high prices obtained by traders for wool enabling them to take more piece-goods, metal vessels and other articles of Indian manufacture. Trade has to contend here with illegal dues levied by Tibetan civil and religious officials.

It has been decided to retain the posts at Patseo and Sangla Dogris for another year in order to give them a full trial: the question of abolishing the Sultánpur post was still under reference at the end of the year.

JOINT STOCK COMPANIES.

Number of Companies.

217. The following abstract shows the number of companies working at the end of this and last year:—

	COMPANIES DIVIDED INTO SHARES.				COMPANIES LIMITED BY GUARANTEE OR POSSESSING NO PAID UP CAPITAL.	
	Number of Companies.	CAPITAL.			Number of Companies.	Number of members.
		Nominal.	Issued.			
			Nominal.	Paid up.		
		Rs.	Rs.	Rs.		
March 1912	194	6,21,31,940	2,92,26,680	1,93,46,130	23	3,387
March 1913	155	6,35,66,940	2,57,11,100	1,67,13,925	23	3,055

Twenty-three new companies were registered, while 44 went into liquidation. Eighteen have been transferred to the register of the Delhi Province.

The majority of the newly registered companies are trading and manufacturing concerns of various sorts. Seven are banking companies, of which 3 started in Lahore and 2 in Multán appear to be superfluous. The latter city is obtaining an unenviable reputation as a home of shady finance.

Of the 44 companies which have ceased working 27 (or more than half) are of the dishonest type of provident fund referred to in last year's report. The Provident Insurance Societies Act has been successful in dealing a death-blow at these miserable concerns. Of the remaining 17 companies, which have come to an end, 2 are banks, 3 mills and 10 miscellaneous trading companies. The fact that more than 20 per cent. of the companies in existence in a year of fair harvests should be obliged to cease work would seem to show that business knowledge or methods in this province are in need of considerable improvement.

Capital.

218. The difference in the figures under the head of "Capital" from those of last year are due largely to the formation of the Delhi Province. One bank has increased its nominal capital by 48 lakhs, of which sum Rs. 3,087 have been paid up. It is more satisfactory to note that the paid-up capital of the province (excluding the Delhi companies) has increased by six lakhs. The percentage of paid-up to nominal capital is still, however, only 26, and the figure would be considerably lower if one or two long established banks with fully paid-up capital were excluded from the list.

Miscellaneous.

219. Ten new societies were registered under Act XXI of 1860. Five of these are "gaushalas."

Methods of business.

220. The provident societies, to which reference has been made above, require separate mention: 17 (including 1 not registered under the Indian Companies Act) now remain, of which 4 have apparently ceased to do any business at all. One has discontinued its provident fund after March 31st and has taken up other work; 7 come under the Indian Life Assurance Act (VI of 1912); 3 have been registered under the Provident Insurance Societies Act (V of 1912) and 2 are in process of becoming so registered. Those funds whose large scope of business brings them under Act VI instead of under Act V are not necessarily of a more reputable character, and it will be necessary to see that these larger concerns are not given more latitude under the former Act than they would receive under the latter.

Three prosecutions for non-submission of documents by the proper date were instituted during the year. In one case the prosecution was withdrawn on the directors offering a satisfactory explanation. The other two cases are still pending.

Since the close of the year under report the failure of several Punjab banks has given point to the remarks of the Registrar of Joint Stock Companies regarding business knowledge and methods in the province. Now that the methods employed by the directors of the liquidated concerns have become common knowledge, the shareholders and policy-holders will perhaps take steps to guard their own interests in future; some stricter supervision on the part of Government may also be looked for when the new Act comes into force.

34.—Buildings and Roads.

GENERAL.

Administrative changes.

221. The Imperial Sub-division, Simla, was transferred to the Government of India and in its place No. 3 Sub-division, Simla, was formed for the construction of the Imperial Legislative Council Chamber and other works. The re-organised Jullundur Division was transferred to the 2nd Circle, and on the exclusion of Delhi Tahsil and one thana of Ballabgarh

Tahsil, a new Gurgaon Division was formed, comprising the newly-organized Gurgaon and Rohtak Districts, and Hissar. The Multán Division was transferred from the 3rd to the 2nd Circle and the King Edward Memorial Division to the 3rd Circle.

Valuation of buildings.

222. The capital cost of the Imperial buildings in charge of the Department was Rs. 39·3 lakhs which were maintained at a cost of little over half a lakh. Provincial buildings of a capital value of Rs. 310·8 lakhs were maintained at a cost of Rs. 4·4 lakhs. The Provincial buildings for which capital and revenue accounts are kept are valued at Rs. 11·76 lakhs and cost Rs. 19,392 to maintain. The percentage of cost of establishment on expenditure was in the case of Imperial Military Works 16·78 per cent., for Imperial Civil Works 17·43 per cent., and for Provincial Works 15·54 per cent.

Total outlay.

223. The total expenditure by the Department on Public Works amounted to Rs. 79·65 lakhs, distributed over Imperial Military Works Rs. 62,903, Imperial Civil Works nearly Rs. 2 lakhs, Provincial Civil Works Rs. 59·3 lakhs and contribution works Rs. 17·7 lakhs.

Imperial Works.

Military.

224. The total outlay was only Rs. 15,750, of which Rs. 1,141 was under "special" demands and Rs. 37,336 on repairs. A godown and two sheds at Sargodha, stallion stables in Chak No. 57 and two supply houses in Kángra District were completed.

Civil.

225. The total outlay on original works was Rs. 3·1 lakhs and on repairs nearly half a lakh. Finished works include a post and telegraph office, offices for the Viceroy's Private Secretary, and improvements to the European Clerks' Cottages at Simla : a grain godown at Hissar Cattle Farm: and improvements in the post and telegraph offices at Lahore. Work was begun on the Anglican Church at Lyallpur and continued on the Imperial Council Chamber and at Courteen Hall, Simla.

Famine Relief.

No expenditure.

226. There was again happily no expenditure on Famine Relief.

Provincial Works.

Total outlay.

227. Owing to the flourishing state of the Provincial finances a *larger* grant was received for Provincial Public Works Expenditure than in the previous year and the budget grant of Rs. 57·98 lakhs of 1911-12 was consequently increased to Rs. 78 lakhs, of which, however, it was not possible to spend more than Rs 59·31 lakhs, Rs. 50 lakhs of which was incurred on works and repairs, and the rest on tools, plant and establishment.

Civil Buildings.

Outlay.

228. The outlay was Rs. 22·3 lakhs on original works and 3·18 lakhs on repairs. The former was distributed as follows :—Forests Rs. 15,000, Administration Rs. 3·15 lakhs, Archæology Rs. 29,000, Education Rs. 5 lakhs, Law and Justice nearly a lakh, Jails $2\frac{3}{4}$ lakhs, Police nearly 3 lakhs, Medical $4\frac{1}{2}$ lakhs and Miscellaneous 2·4 lakhs.

Works completed.

229. A house at Kálka was purchased for the Naib Tahsildar's court and residence: and three residences built at Dharmsála and Jullundur : the record-room at Dera Gházi Khan was completed and additions to similar buildings at Ludhiána, Hissar and Ambála : also courts at Hoshiárpur, Montgomery and Jhelum (two). Works were executed for the Archæological Department in Delhi Fort and in connection with mosques and gardens in Delhi and Lahore. The High School, Campbellpur, the main college building at Rasúl, and Queen Mary's College, Lahore, were completed, together with the subsidiary jail at Dera Gházi Khan, 11 police stations and 9 rest-houses in various

istricts, police lines and barracks at Dera Gházi Khan, Montgomery and ohtak, the police parade ground at Dharmsála, the Leper Asylum, Sabáthu, pecial repairs to the Lunatic Asylum, Lahore, and to "Ellerslie", Simla. n addition, land was acquired in Lahore for the Government Press, the ombined offices of the Directors of Land Records, Fisheries, Agriculture and ndustries, and the Registrar, Co-operative Societies, Punjab, and at Siálkot or the High School.

Progress was made with the following works:—the Deputy Commissioner's Court and the tahsil at Dera Gházi Khan, quarters for Professors and Agricultural Assistants at Lyallpur, the agricultural station at Gurdáspur, a rest-house at Taxila for the Director of Archæology, High Schools at Dharmsála and Gujrát, out-houses and workshop for the Mayo School of Arts, Lahore, the Kacheri at Jhang, subsidiary jails at Amritsar and Lower Dharmsála, the Borstal Central Jail, the King Edward Memorial Scheme and the Vaccine Institute at Lahore, the dispensary and Civil Surgeon's office and residence at Dharmsála, one police station and 13 civil rest-houses.

COMMUNICATIONS.

Roads.

230. The outlay on works amounted to Rs. 5½ lakhs, more than twice as much as in 1911-12, and on repairs to Rs. 11⅓ lakhs. Thirty-six miles of feeder roads were completed, comprising the Ladwa-Abdullapur road (Rs. 1,08,184), the road from Nalagarh State boundary to Beli and on to Rúpar (Rs 36,223) and the Tibri-Beas road in Gurdáspur (Rs. 44,185): a part of the Grand Trunk Road at Ludhiána was raised. The maintenance of 1,083 miles of Provincial metalled roads by the Department cost Rs. 740 per mile, and that of 152 miles by District Boards Rs 694 per mile. District Boards spent Rs. 420 per mile on their own metalled roads, 1,358 miles in length. On unmetalled Provincial roads the Department spent Rs 129 per mile on 743 miles and District Boards Rs. 16 per mile on 1,032 miles. On 19,112 miles of unmetalled District Boards roads the Boards spent Rs. 7 per mile.

Boat Bridges.

231. Boat bridges were kept up at Shahdara over the Ravi and at Wazírabad over the Phalku Nala throughout the year and for the cold weather months at Khusháb and Dera Gházi Khan over the Jhelum and Indus rivers respectively.

MISCELLANEOUS PUBLIC IMPROVEMENTS.

Outlay.

232. Miscellaneous expenditure charged to Provincial amounted to Rs. 6 89 lakhs for works and nearly a lakh for repairs, and that charged to Municipal and Loans amounted to Rs. 89,560 for works and Rs. 5,819 for repairs.

Simla.

233. The Simla Hydro-Electric scheme made very good progress and is being pushed on to completion vigorously. The reservoir, power house, and head stock chamber were completed during the year and the remaining transmission lines and the distributing mains were practically finished by the end of March 1913. For the Simla water-supply extension scheme the pumping station, tank, weirs, etc., have been constructed and one Jewell filter and two rising mains are nearing completion. The erection of the electrical equipment for pumping purposes is in hand. The scheme has been added to by the laying of mains for the supply of water to the Retreat and Mashobra bazar.

The Nammal Dam.

234. The masonry dam in Nammal Gorge which was begun in October 1911 and the canal in connection with it was in progress and completed after the close of the year: it is the first large masonry dam of any considerable height constructed in the Province.

Municipalities.

235. At Tandliánwála a temporary water-supply was completed, also a sarai and metalling of roads and brick pavement in the market. Dera Gházi Khan was provided with a water-supply and irrigation, Jaranwála with a water-supply and drainage and Chuhar Kána with drainage. The extension of the water-supply at Dharmsala was in progress.

Delhi.

236. Three lakhs were spent on adapting the Circuit House at Delhi as a residence for the Viceroy.

CONTRIBUTION WORKS.

Outlay and Works.

237. The total outlay was Rs. 15·39 lakhs, which was chiefly spent on renewing stallion stables at Lyallpur and Bhalwal, improving and metalling roads and drainage at Chiniot, Hazro and Lyallpur, water-supply at Lyallpur, Toba Tek Singh and Lower Dharmsala, extension of the Punjab University buildings, constructing a temple and dharamsala at the Aitchison College and improvements to Nur Jahan's tomb at Shahdara and the police station at Batála.

Assistance to Local Bodies.

238. In addition Local Bodies were assisted by the preparation of projects for them aggregating Rs. 17·7 lakhs and projects aggregating Rs. 19·8 lakhs were scrutinised: the works in most of these cases will be done by the Department.

34-A.—Railways and Tramway.

RAILWAYS.

New lines.

239. On the North-Western Railway the doubling of the Lahore-Raewind section of 24 miles was completed, and that from Rohri to Janori of $1\frac{1}{2}$ miles. The sanctioned extensions are those from Jakhal to Hissar, Sarai Kála to Havelián, Jullundur to Hoshiárpur, Ambála to Sahάranpur (second line), in all 158 miles: work was done on all these sections during the year. The remodelling of Lodhrán station was completed, and the doubling of the new Beas bridge carried on. By the same agency the Jullundur Doáb Railway, 28 miles, was opened. The Southern Punjab Railway, which is worked by the North-Western Railway, also obtained a contract for the construction of 105 miles of railway from Sultánpur to Ferozepore, Lohian to Phillaur and Jullundur to Nakodar.

Statistics.

240. The mileage of the North-Western Railway is now 4,903, train mileage has increased by one million to 22·8 millions: the capital outlay is now £56 millions (Rs. 8,407 lakhs) and the net earnings have increased by Rs. 129 lakhs to Rs. 489 lakhs giving a return of 5·77 per cent. on the capital outlay as against 4·38 last year. The "military" part of the system showed a deficit of Rs. 9,000 on the year's working. Of the increase of Rs. 637 lakhs on the gross earnings of Indian railways, the North-Western Railway accounted for Rs. $126\frac{1}{2}$ lakhs or 19·86 per cent., and of the increase in the goods earnings, Rs. 132 lakhs or $26\frac{1}{2}$ per cent., chiefly by grain and pulse and raw cotton for export.

TRAMWAYS.

241. The Delhi tramways disappeared this year from the Punjab returns. The Jagádhri light railway paid 1·54 per cent. on the capital, earning Rs. 2,000 net.

Accidents.

242. A collision between a goods and a ballast train occurred at Attock, fifteen coolies being injured, two of whom died. The driver lost control of the train and ran past signals.

35.—Irrigation.

General.

243. In the year under report the total area irrigated in British districts and Native States by canals in charge of the department was 8,429,381 acres as against 7,548,515 acres which was the average of the last three years: in addition 65,110 acres were watered from the Western Jumna Canal in Jínd State by the State authorities (an advance of some 2,500 acres on last year's figure), and 2,300 acres from the Butana Canal. The weather conditions of the year are described in section 28, and the general conditions of each canal will be found noted below. General results.

On the eight Major Canals a capital outlay, direct and indirect, of Rs. 28½ lakhs was expended, bringing up the total cost of these works to Rs. 1,163 lakhs, and the net profit after paying interest amounts to Rs. 192 lakhs, or 13·1 per cent., on the capital expenditure to the end of the year.

On the two Minor Canals, for which capital accounts are kept, the total capital cost is now nearly Rs. 6 lakhs, upon which a net loss of Rs. 8,000 was experienced. Including these canals the net profit from all Imperial Minor Canals (which are not classed as productive) was Rs. 7·8 lakhs.

On the two Provincial Canals there was a balance profit of Rs. 15,301 against an almost equal loss last year.

On the canals of the Triple Project Rs. 125 lakhs were spent during the year, bringing the total capital outlay at the end of the year to Rs. 775·4 lakhs. The maintenance charges of the Upper Chenab Canal just exceeded receipts at Rs. 1⅗ lakhs, while the interest on the total capital outlay of the project amounted to Rs. 24·4 lakhs against Rs. 19 lakhs last year.

The gross Imperial Capital now invested in the Punjab Canals is Rs. 1,949 lakhs, or practically £13 millions sterling as against £12 millions, which is the figure for last year.

Major Works—Canals in operation.

244. The year was a satisfactory one for the Western Jumna Canal. The total irrigation amounted to 822,341 acres, including 71,865 acres, watered by the Sirsa Branch in the Patiála State, and in addition to 67,410 acres in Jínd by two other branches. The area watered during Kharif 1912 was actually smaller than that of the year before owing to low supply in the river. But the monsoon being late crops were sown and matured with canal water, and after the good late summer and autumn rains a large *barani* area was sown for the *rabi*. The winter rains failed just when the canal supply ran short, and the large crops were only saved by rains in February. Canal water was utilised to the utmost, and the area of irrigated *rabi* was greater than in any year since 1895-96. Village tanks were kept filled in the hot weather without charge. The area remitted amounted to 3,410 acres during kharif, of which 2,515 acres of cane and cotton were destroyed by grass-hoppers and blight and 941 acres during *rabi*, owing to short supply in the river and hail. The Imperial average net profit of the previous triennium was 3·7 per cent.; this year it was 6·98 per cent. The gross revenue was Rs. 29½ lakhs and the working expenses Rs. 11½ lakhs. The net revenue received by the Patiála State on the Sirsa Branch amounted to Rs. 1½ lakhs, representing 13·45 per cent. net profit, against 9 per cent., the average of the preceding triennium. The increases are due to increase of irrigation. The Jínd Branches show a profit of Rs. 88,747 against Rs. 1,12,153 last year. The number of boats plying on the canal has again decreased to 23, but the profits of navigation increased to half a lakh owing to a large call for timber. The total value of all crops after paying water-rates is estimated at Rs. 38 per acre assessed, and in addition large areas of cane and other food Western Jumna Canal.

crops are grown on percolation without paying rates. It has been decided to increase the permissible irrigation to 33 per cent. of the culturable commanded area on all channels at present designed for less. This entails the overhauling of practically every channel on this canal. Surveys are in hand for remodelling the Delhi and Butána Branches, and a second large silting reach has been begun on the main line. Extensive fruit gardens were laid out, being found to give large returns.

Sirhind Canal.

245. On the Sirhind Canal the total irrigated area amounted to 1,476,782 acres, an advance of 33 and 35·7 per cent., respectively, on the averages of the two previous triennia. Last year a quantity of *barani* cultivation was brought under the canal owing to failure of rainfall, and the results are seen in the record collections during the year under report: at the same time this year's irrigated area is the second highest on record. The navigation traffic increased by 4,000 tons to 29,000 tons, valued at Rs. 10·4 lakhs. The net revenue earned on the British Branches amounted to Rs. 35,41,098, equivalent to 14 per cent. on the capital invested, a figure which has never before been attained to on this Canal. On the Native States Branches the collections came to Rs. 24·3 lakhs or Rs. 7½ lakhs more than in the previous year, while the assessment fell by 1·7 lakhs to Rs. 22·8 lakhs: the profit was 11·7 per cent. by collection and 10·09 per cent. by assessment on the total capital outlay to end of the year, the corresponding figures for the previous year being 7·31 and 12·8 per cent., respectively.

The canal *rabi* supply was found insufficient to meet the keen demand. Rotational closures of distributaries and outlets had to be resorted to and the prospects of the standing crops at one time looked gloomy. The rains after the middle of February, however, were just in time to save the situation, and helped greatly in maturing the crops. There were no marked calamities and crops were good.

Expenditure was concentrated chiefly on lining certain lengths of the canal to prevent excessive percolation, on buildings, bridges, and on remodelling distributaries and constructing silting reaches on the Abohar Branch.

The projected schemes on this canal include an extension of 420,000 acres of irrigation in Sirsa Tahsil at a cost of Rs. 20½ lakhs, the construction of the Naila Dam to cost Rs. 260·75 lakhs for supplying *rabi* water to the same tract, and the waterproofing of the channel at a cost of Rs. 10 lakhs.

Upper Bari Doab Canal.

246. The heavy outturn of work at the Central Workshops, in connection with the Balloki Barrage on the Lower Bari Doab Canal, resulted in a reduction of capital outlay debited to the Upper Bari Doab Canal by Rs. 2⅓ lakhs. The work done included sluice-gates, iron superstructure, lifting machinery and iron road bridge for the Balloki level crossing, which has 35 openings, each of 40 feet span, and other machinery for the Suketar level crossing of the Upper Jhelum Canal. The capital expenditure on the Upper Bari Doab Canal was mainly devoted to remodelling distributaries and lining channels: in addition 3½ lakhs were spent on extensions and improvements, including the construction of two new minors: the main water-courses in Lahore will all eventually be lined with masonry. Maintenance expenses totalled Rs. 6·28 lakhs.

The area irrigated was a record one both for the year and for the *kharif* harvest, amounting to ½ million acres for the latter and 1,170,716 acres for the whole year. The net income was Rs. 28·8 lakhs, bringing in a return of 13·58 per cent. Further water-proofing of the canal is contemplated, with re-alignment of distributaries, new gates to Madhopur under-sluices, a head regulator and other improvements for the Shah Nahr Canal, new offices at Amritsar, and the Amritsar Hydro-Electric Scheme.

Lower Jhelum Canal.

247. The area irrigated by the Lower Chenab Canal shows a decrease 93,887 acres compared with last year's figure : this was due to short supply the river and absence of rainfall at the time of sowing rabi crops; there s practically no rain from October to January. In all 2,240,203 acres were gated, one-third in the *kharif* and two-thirds in the *rabi*.

The net revenue of the year amounted to Rs. 1,21,14,426, equivalent a percentage of 29·18 on the capital invested (Rs. 3,09,18,169) to end of year. In the previous year the figures were Rs. 1,02,78,146 and 34·06, pectively.

The accumulated net profits have increased from Rs. 6,71,13,061 to . 7,81,84,068, against Rs 3,09,18,170, the capital invested at the close of e year, or, in other words, these profits now exceed the cost of the canal by s. 4,72,65,899.

The increase of Rs. 1,13,891 in the assessment of water rate as comred with the last year is due to the judicious distribution of supply and the consequent reduction in the area remitted. The heavy decrease of ts. 3,69,973 in the assessment of owner's rate was due to the abolition of the ates in the villages recently reassessed and the corresponding increase in ssessment of land revenue was due to the imposition of the new rates in these rillages.

Lower Chenab Canal.

248 The irrigated area on the Lower Jhelum Canal amounted to 304,361 acres, an increase of 4,712 acres on last year, while the assessed area was 783,645 acres, which is 87,250 acres more than last year.

The area remitted on account of failed crops was 20,716 acres (10,746 during *kharif* and 9,970 during *rabi*) which included 4,168 acres remitted under tenancy rules. The area remitted last year was 102,154 acres.

The increase in the areas irrigated and assessed was due to favourable weather, non-appearance of the boll-worm which in the previous triennium caused considerable damage to the cotton crop, and consequently to a reduction in the area remitted.

The rainfall was good on the whole, though nearly all the rain fell in July, August, February and March. The supply in the canal was sufficient, and no rotational closure had to be enforced. On the branches, 36,658 acres were allotted.

The gross actual receipts, direct and indirect, came to Rs. 42,19,176 and the working expenses to Rs. 10,11,377, showing a net revenue of Rs. 32,07,799 or 20·09 per cent. on the capital outlay to end of the year, as against 10·91 per cent., which was the average for the three years ending 1911-12 : deducting interest charges, the profits of the canal were 16·65 and 7·68 for this year and the triennial average preceding. The recovery from the cultivators of the cost of constructing water-courses reduced the capital outlay by Rs. 2 lakhs : expenditure was largely connected with the Rasul Weir and pitching the canal with bricks. Occupiers' rates increased by about Rs. 4½ lakhs on the preceding triennial average : this is the result of favourable weather and low remissions : indirect receipts rose by Rs. 10¾ lakhs owing to enhanced rates for land revenue and *malikana*. The remodelling of the Head Regulator and the main canal will be necessary in about two years' time when the rotational supply system in conjunction with the Triple Project comes into force : the construction of reservoirs in two torrents for conserving a part of the monsoon flow-off to be used in the winter is also contemplated.

Upper Sutlej Inundation Canals.

249. The Upper Sutlej Inundation Canals irrigated 332,229 acres against 336,575 and 295,123, the averages of the triennia ending 1909 and 1912, respectively.

The matured areas amounted to 134,625 acres in *kharif*, 173,642 in *rabi*, total 308,267, against an average of 110,252 *kharif*, 155,745 *rabi*, total 265,997, of the previous triennium. The general increase is due to better condition of the river and the canals. The failed area of the year was 23,962 acres against 30,810 of the previous year.

The gross income, direct and indirect, totalled Rs. 5,10,165, against an average of Rs. 6,07,155 in the previous triennium. After allowing for working expenses, which amounted to Rs. 4,09,216, the net income was Rs. 1,00,949, against Rs. 2,60,797, of the previous year. The decrease was due to short *rabi* sowings in the autumn of 1912, the river in the flood season of 1911 having been unusually unfavourable. The expenditure was chiefly on construction of buildings, the new head reach of the Upper Sohag Canal, and remodelling of distributaries.

Sidhnai Canals.

250. On the Sidhnai Inundation Canals, including the Koranga, Fazil Shah and Abdul Hakim Subsidiary Canals, the early *kharif* sowings were restricted by the irregular and insufficient supply in the canal up to the middle of July when the monsoon arrived. The canal failed totally in November, and altogether the water was flowing for 80 days less than last year, with the result that 29 per cent. of the *kharif* and 17 per cent. of the *rabi* crops failed. There are not enough wells in the tract, and there was a failure of rain which is usually counted on to supplement the canal supply. The net revenue Rs. 3·8 lakhs or 28·6 per cent. on the capital outlay, against 37·8 per cent. last year.

Indus Inundation Canals.

251. The area irrigated by the Indus inundation canals was below that of the average of the two previous triennia, owing to low supply in the river. The net profits amounted to 3·12 per cent. against 4·96 last year, due to decrease in irrigation. Money was spent chiefly on the usual annual repairs and silt clearances and on buildings at Chorutta and Rájanpur.

Upper Chenab Canal.

252. Irrigation was begun on the Upper Chenab Canal a year earlier than was anticipated in the project. The canal remained open with short closures for silt scouring until October 18th, when the entire river supply was required for the Lower Chenab Canal : 116,162 acres were irrigated, 54 per cent. of which was watered in the *kharif* and 46 per cent. in the *rabi*. In addition 30,525 acres were irrigated by water escaped into the Deg Nullah on the Main Line Lower. Rupees 23 lakhs were spent on the canal, bringing the total cost up to 295·3 lakhs : the revenue realised fell nearly Rs. 6,000 short of the expenditure which was connected with ordinary maintenance. The Main Line is complete, and so is the Main Lower except the Tail Fall. The Raya Branch was in progress as far as mile 35 : work on the Nokhar Branch is being resumed after decision of certain technical points.

Upper Jhelum Canal.

253. A description of the scope and main features of the Upper Jhelum Canal was given in last year's Administration Report. The progress made during the year under review was most satisfactory, and it is hoped that the canal will be opened in time for the *rabi* crop of 1914-15. All Main Line works with the exception of the Mangla Regulator, the great Mangla cutting, the Tail Fall and Gujrát Branch Head Regulator were either completed or nearing completion at the end of the year. Direct charges of Rs. 56 lakhs brought the total direct charges outlay from the commencement of operations to Rs. 308 lakhs.

E. 1/1912-13

Lower Bari Doab Canal.

254. A general description of the Lower Bari Doab Canal was given last year. The revised estimate of the cost of the canal is Rs. 216·7 lakhs and the expenditure up to the end of the year under report was Rs. 163·25 lakhs. It is confidently expected that the canal will be completed well within the revised estimate. The river has taken to the new channel cut for it more readily than was expected, and the right flood embankment on the old bed of the river, just above the headworks, was constructed on dry ground. On the level crossing itself the steel work erected under the supervision of the

[S]uperintendent, Central Canal Workshops, was sufficiently far advanced to [en]able the river to be controlled by the end of the year. The rectangular [de]marcation of the land commanded by the canal was completed and a [Co]lonization Officer was appointed during the year to the tracts which would [be] irrigated during the monsoon of 1913. The canal was formally opened [b]y the Lieutenant-Governor on April 12th, 1913, just after the close of the [ye]ar under report.

IMPERIAL MINOR WORKS WITH CAPITAL ACCOUNTS.

Shahpur Imperial Canals.

255. The demand for water on the Shahpur Canal was keen and [t]he supply adequate; 2,451 acres failed owing to shortage of water-supply [a]gainst 4,620 acres in the previous year. The area irrigated amounted to [4]0,954 against 32,084, the average for the last triennium: the assessed area [w]as 38,448 acres against 27,673 acres. Nearly half a lakh was spent on [o]rdinary, maintenance, silt clearances, and two bridges, and the net revenue was accordingly only half the average of the preceding triennium, namely, Rs. 18,153, giving 8·41 per cent. profit on capital.

Ghaggar Canals.

256. The area irrigated by the Ghaggar Canals was 48,531 acres, the second largest area on record, and included 7,179 acres in Bikáner which received no irrigation last year. There was, however, a loss of Rs. 26,104 or 6·94 per cent. on the capital outlay, against Rs. 13,948 loss last year. The Bikáner State profited to the extent of Rs. 6,853, against a loss of Rs. 9,101 last year.

The figures for the year under report include 10,297 acres in *kharif* and 4,615 acres in *rabi* in the fluctuating area, and 6,106 acres in *kharif* and 1,561 acres in *rabi* in the non-fluctuating area, or a total of 22,579 acres, which were watered but not sown, and on which no water rates were charged. The lands under fluctuating assessment are not subject to water rates, but the canals receive a credit for any fluctuating revenue in excess of the standard figure of Rs. 37,000 per annum. The fluctuating area irrigated, excluding "palever," was 6,662 acres in *kharif* and 7,003 acres in *rabi* and yielded Rs. 16,467 and Rs. 5,721, respectively, or a total of Rs. 22,188, which is Rs. 14,812 less than the above standard figure.

IMPERIAL MINOR WORKS WITH REVENUE ACCOUNTS ONLY.

Lower Sutlej Inundation Canals.

257. There was an almost total absence of rainfall, and the Sutlej was low in the sowing season. 18·6 per cent. of the irrigated area failed as against 18 per cent. last year. The canals irrigated 246,872 acres, of which 200,735 acres matured. Over half a lakh was spent on extensions and improvements *to channels* and outlets and Rs. 1¼ lakh on maintenance and repairs; no capital account is kept. The gross revenue was Rs. 4·70 lakhs against Rs. 5 lakhs in the two preceding years, and the net revenue was Rs. 1,73,499, which is higher than last year, owing to a reduction in the working expenses.

Chenab Inundation Canals.

258. The river Chenab throughout the year was very low, and in February at the Sher Shah gauge it fell below the lowest level recorded: 184,056 acres were watered against 190,300 the average of the preceding triennium.

The percentages of failed crops were 38·57 for *kharif* and 10·22 for *rabi*, against 33·6 and 12·0, respectively, in the previous year.

The total income from all sources was Rs. 3,90,765 and the expenditure Rs. 1,56,047, showing a net revenue of Rs. 2,33,818 against Rs. 2,16,992 in the previous year.

Muzaffargarh Inundation Canals.

259. The matured area measured 356,402 acres and the failed area 28,963 acres. This is a very satisfactory result, the gross irrigation being above that of the averages of the two previous triennia, while the percentage of *kharaba* was less, being 7·5 per cent. only against 14·0 and 10·4 per cent. for the two triennia. A new head regulator was built for the Puran Escape, and improvements effected in channels and outlets; two new rest-houses were built and the usual silt-clearing carried out.

The revenue realized amounted to Rs. 7,11,972 and working expenses to Rs. 3,22,915, resulting in a net revenue of Rs. 3,89,057 against Rs. 2,99,515 of the previous year and an average of Rs. 2,18,176 for the previous triennia.

In the Sanawan Tahsil sub-soil water has risen seriously and remedial measures have been adopted to stop this evil by reducing the excessive supply of water and by excavating drains.

PROVINCIAL CANALS.

Shahpur and Ravi Provincial Canals.

260. The supply in the Shahpur Provincial Canals was sufficient and the season favourable, the assessed area reaching 29,569 acres against the preceding triennial average of 21,048 acres. A net revenue of Rs. 29,409 was realised, the working expenses showing a paper decrease owing to the sum of Rs. 13,092 charged to this head during the last two years for surveys having been written back to the proper fund head 43 – Minor Works and Irrigation.

The Ravi Inundation Canals irrigated 30,729 acres against 21,319 and 17,492, the two previous triennial averages. The increase was due to the inclusion of the irrigation by escape water from the Deg Nallah on the Upper Chenab Canal, which amounted to 18,260 acres.

The irrigation of the Deg Canal will be taken up by the Upper Chenab Canal, and it was therefore transferred from the Upper Bari Doab Circle to the Upper Chenab Circle during the year. The Lower Bari Doab Canal, on its completion, will take up the irrigation of the other inundation canals which are on the left bank of the river Ravi, and they have, therefore, been transferred to the 2nd Division, Lower Bari Doab Canal.

The gross income amounted to Rs. 7,517 and the working expenses to Rs. 21,625, resulting in a loss of Rs. 14,108 against an average loss of Rs. 1,327 during the previous triennium.

SUTLEJ CANAL SURVEYS.

261. At the request of the Báhawalpur State Darbar and at their expense an additional area of 3,650 square miles lying on both sides of the railway line from Baháwalpur to Khánpur was accurately surveyed and levelled over with a view to extending irrigation to as much of the land of this State as possible. By the end of financial year all the field work had been completed and the work of plotting maps was put in hand.

CANALS IN CHARGE OF DISTRICT OFFICERS.

Minor Canals Act.

262. No new canals were notified during the year under the *Minor* Canals Act.

The area matured by the Gurgaon bunds has largely increased and the income slightly, while the cost of establishment shows a satisfactory decrease. The Delhi bunds and the Surusti Canal in Karnal also worked with satisfactory results. Investigations into the working of the Shah Nahr in Hoshiarpur resulted in a definite scheme for improvement and realignment and for a regulator head and escape. These improvements are now being carried out. The Grey Canals in Ferozepore show a decrease in area watered from 111,737 to 102,781 acres. A full report on this system is still awaited. In Mianwali the Nammal Dam was under construction by the Public Works Department, and completed after the close of the year.

In Montgomery the remodelling of the Gharak and Gharkhana Canals is under consideration. The receipts credited to Government from the Kitchin Canals rose from Rs. 12,998 to Rs. 20,270. In Dipalpur a short lead of half a mile from the Sutlej to a natural depression has resulted in the irrigation of 10,000 acres, and a detailed survey is now being made with a view to further developments.

CHAPTER V.

REVENUE AND FINANCE.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Land Revenue.—Report on the Land Revenue Administration of the Punjab for the agricultural year ending 30th September 1912.

Canal Revenue.—Administration Report of the Irrigation Department, Punjab, for the year 1912-13.

Excise and Opium.—Report on the Excise Administration of the Punjab for the year 1912-13.

Stamps.—Note on the Stamp Statements of the Punjab for the year 1912-13.

Income-Tax.—Report on the Income-Tax Administration of the Punjab during the year 1912-13.

Forests.—Progress Report of Forest Administration in the Punjab for 1912-13.

Provincial Revenues.—Budget for 1913-14 and Financial Statement, published in the *Punjab Gazette.*

Local Funds.—Report on the Administration and Accounts of the District Boards in the Punjab for the year 1912-13.

Municipal Revenues.—Report on the working of Municipalities in the Punjab during the year 1912-13.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Statistics of British India, Part III—Commercial Services.

Part IV (*b*)—Finance and Revenue.

Part VIII—Local Funds.

Salt.—Report on the Administration of the Northern India Salt Revenue Department for the official year 1912-13.

36.—Gross Revenue and Expenditure.

263. The Administration Report of 1911-12, paragraph 495, gives a description of the method of calculating the gross revenue raised in the Province and controlled by the Local Government, and the shares due to Imperial and Provincial Governments, respectively. The following table gives the principal heads of revenue raised in the Punjab, the figures standing for lakhs of rupees :— Gross revenue.

Major heads.	Imperial.	Provincial.	Total.	± on figures for 1911-12.
Land Revenue	72·03	2,21·49	2,93·52	+ 3·86
Opium	5·96	*Nil*	5·96	− ·24
Salt	38·35	*Nil*	38·35	+ ·19
Stamps	27·62	27·62	55·24	+ 2·67
Excise	35·06	35·06	70·12	+ 6·12
Income-Tax	8·45	8·45	16·9	+ ·68
Forest	*Nil*	12·39	12·39	− ·71
Registration	*Nil*	3·51	3·51	+ ·35
Tribute	1·39	*Nil*	1·39	− ·08
Interest	·37	2·46	2·83	− ·1
Law and Justice—Courts	*Nil*	4·89	4·89	+ ·54
Do. —Jails	*Nil*	3·27	3·27	− ·14
Police	*Nil*	1·98	1·98	+ ·19
Education	*Nil*	4·33	4·33	+ ·41
Miscellaneous	·43	10·03	10·46	− 3·69
Irrigation—Major Works	1,63·73	1,63·72	3,27·45	+ 56·12
Do. —Minor Works	7·98	·69	8·67	+ ·68
Civil Works	·79	5·24	6·03	− ·9
All other heads	2·05	4·59	6·64	+ ·46
Total ...	3,64·21	5,09·72	8,73·93	+ 66·41

Gross Expenditure.

264. The gross Government expenditure, excluding expenditure of the Military, Railways, Post Office and Telegraph Departments and capital expenditure on canals is as follows (in lakhs of rupees) :—

Major heads.	Imperial.	Provincial.	Total.	± on figures for 1911-12.
Land Revenue	...	47·42	47·42	− ·61
Salt	5·22	...	5·22	+ ·4
Stamps	·92	·91	1·83	+ ·06
Excise	·92	·93	1·85	+ ·14
Income-Tax	·06	·05	·11	...
Forests	...	7·99	7·99	+ ·34
Registration	...	1·18	1·18	− ·02
General Administration	4·76	12·46	17·22	− 1·11
Law and Justice—Courts	...	42·22	42·22	+ ·05
Do. —Jails	...	13·15	13·15	+ ·87
Police	...	58·54	58·54	− ·09
Education	...	34·44	34·44	+ 10·89
Medical	...	25·86	25·86	+ 4·59
Scientific	1·12	8·71	9·83	+ ·99
Pensions	·05	19·18	19·23	+ ·45
Stationery	·21	6·71	6·92	− ·40
Irrigation—Major Works	73	73	1,46	+ 9·58
Do. —Minor Works	9·17	1·	10·17	− ·99
Civil Works	4·4	71·86	76·26	+ 6·18
All other items	13·73	9·94	23·67	+ 1·66
Total ...	1,13·56	4,35·55	5,49·11	+ 33

37.—Land Revenue.

Land Revenue.

265. As explained in paragraph 497 of last year's Administration Report, the land revenue as given in the Land Revenue Report concerns the year ending 30th September, six months preceding the end of the financial year. There must always be a difference between the total collections as calculated by the Treasury and by the Financial Commissioner's Office in their yearly returns. This year the amount is Rs. 2 lakhs. The Land Revenue Report for the year ending September 30th, 1912, returns the following figures :—fixed collections Rs. 209·9 lakhs, fluctuating Rs. 88 lakhs, other land revenue Rs. 68·4 lakhs, and collections of previous year's demands Rs. 62,427 : total Rs. 3,67 lakhs, or, deducting Rs. 71½ lakhs due to Irrigation, Rs. 2,95½ lakhs. For the financial year ending March 31st, 1913, the land revenue is given as Rs. 2,93½ lakhs. The difference of Rs. 2 lakhs shows the excess collections in the latter half of the financial year 1912-13 over those of the corresponding period of 1911-12, and is due to sales of proprietary rights and new assessments in the Canal Colonies which out-weighed the suspensions granted for the kharif 1911.

38.—Irrigation.

Irrigation.

266. Under the Provincial Settlement, the Punjab Government is guaranteed a minimum net revenue from Irrigation of Rs. 41 lakhs. In

calculating this sum, only direct revenue is taken into account. The Provincial share of the income from Major Works is one half, and of Provincial Works, the whole; while the Imperial Government takes the whole income of Imperial Minor Canals. Taking the Accountant-General's figures, the Provincial share of direct income from Major Works for the year is Rs. 123·35 lakhs and from Minor Works Rs. 69,165: deducting Rs. 74 lakhs expenditure (73 lakhs on Major and one lakh on Minor Works) the balance Rs. 50 lakhs is well above the guaranteed minimum. This is the first year in which no contribution on this account from Imperial to Provincial has been necessary. The circumstances of the various canals have been described in section 35 above.

39.—Excise and Opium.

General.

General progress.

267. The year has been one of steady development on lines approved by the Imperial Government. The new Excise Bill received the administrative approval of that Government, and after being introduced into the Provincial Legislative Council was circulated for opinion. It was made law after the close of the year under report. Special measures were taken during the year to combat smuggling of all kinds, rules were framed for the control of cocaine, and similar rules regarding morphia are now before the Government of India. The abolition of wastage allowances has removed anomalies in the working of the liquor supply. Duty on opium has been raised to a uniform rate of Rs. 20 per seer throughout the Province with effect from April 1st 1913, and the duty on *charas* to Rs. 12 per seer from the same date. There still seems to be no sufficient case made out for differentiating special or spiced spirit from plain country spirit in the still-head duty scale. Licenses for sale of liquor at fairs and along pilgrimage routes have been abolished in Kángra District, in the interests of temperance, and similar action has been taken in Siálkot, Ráwalpindi and Attock and will be further extended. At the same time it is realised that the closing down of liquor shops has probably now reached a point beyond which it would be unsafe to proceed without extreme caution: the general average for each retail country spirit shop is 125 square miles of country and 25,000 persons. With the exception of Nábha, the Native States are co-operating heartily with Government in giving effect to a uniform excise policy, and it is hoped that the courts will follow the lead of the legislature in taking a more serious view of smuggling offences. If the present attitude of the judiciary and the public represents Indian opinion, the evidence of a genuine sentiment against drink, and the illicit practices that lead to drink, is conspicuous by its absence. It is satisfactory to note however that temperance societies are already making their influence felt to some extent.

Gross Revenue.

268. The returns are complicated by the fact that the Delhi revenue was transferred from the Province from October 1st, 1912, and by the new system of accounts whereby earnest money for vend fees paid in February and March is at once credited instead of being kept in deposit till after the beginning of the new financial year in April. If these two disturbing factors are eliminated from the account of this and the previous year, comparison shows that excise revenue has risen by Rs. 2,64,603, though the actual receipts totalled Rs. 70 lakhs against Rs. 64 lakhs last year. Expenditure, which does not include charges in the Financial Commissioner's Office, amounted to some two lakhs only. Rupees 1,84,926 is still owing in still-head duty from the Amritsar distillery whose affairs are being managed by the Administrator-General of India. Other arrears are being realised.

Liquor.

Production.

269. The outturn of plain spirit has decreased by 53,000 gallons, while that of other kinds has increased by 19,000 gallons, leaving a net decrease of 34,000 gallons, chiefly due to the fact that the Patiála State has now its

own distillery. Issues were however stimulated by anxiety to take full advantage of the wastage allowance before its abolition. The duty realised was Rs. 25·2 lakhs in spite of the diminished outturn. The Ráwalpindi and Sujánpur distilleries increased their output, while that of Solon and imports from Rosa decreased. Breweries also produced less than last year by 50,500 gallons, but more than in 1910-11: draft rules are under consideration for levying duty on beer manufactured instead of on the quantity issued for sale.

Foreign liquor.

270. Income from licenses for sale of foreign liquor amounted to Rs. 2 lakhs, an increase of Rs. 9,000 on last year's figures. Rum, whisky and brandy of Indian manufacture are ousting imported spirits.

Beer.

271. It is hoped that beer may displace spirit to a larger extent in the towns and in course of time among the rural population as well, and signs are not wanting that the taste for beer is growing among Indians, but as yet sales are insignificant under auctioned bazar licenses.

Country spirit.

272. The total income from country spirit was Rs. 41·6 lakhs, including Delhi receipts for 6 months, against Rs. 40·69 last year: license fees brought in nearly one lakh more than in 1911-12. There was at the same time a decrease in consumption of 5 per cent. on last year's figures, Delhi being excluded in each case; the diminution being greatest in Ferozepore, Lahore and Lyallpur. The decrease is put down to the closure of a number of shops in Ferozepore, the experiment of licenses for "off" consumption only, the success of temperance organizations, and in Lahore to the fact that too high a price was charged for special bottled spirit. In Lyallpur the zamindars wanted their money for purchasing proprietary rights in land and to insure against a poor harvest which was expected. Vend fees have risen to Rs. 3-14-6 per gallon which is 44 per cent. of the price: duty however which forms the other 56 per cent. cannot be raised until the administration has a firmer hold on illicit distillation. The number of wholesale licenses remained practically the same.

OPIUM.

Revenue, taxation.

273. The main head of income, the duty on excise opium, shows a considerable increase—Rs. 5,58,547 against Rs. 5,13,438 in 1911-12. As the duty continued unchanged throughout the year, the enhanced revenue is due entirely to increased sales, which amounted to over 9 per cent. on last year. There seems to be no reason for supposing that the taste for the drug is spreading and there are indications that a large quantity of excise opium is disposed of illicitly every year for consumption outside the Province. A gradual enhancement of the price seems desirable, and may help to reduce the attractions of smuggling to Burma: definite proposals for increasing the price are now under the consideration of Government. The imports of Hill States opium which appear to have been affected last year by the enhancement of duty in 1910 showed a marked increase, and the duty realized amounted to Rs. 54,789 as against Rs. 22,934 in 1911-12. Receipts from acreage duty (poppy-heads only) in Jullundur and Hoshiárpur declined from Rs. 2,483 to Rs. 1,205. The similar duty on poppy cultivation in Kulu (Rs. 9 per acre) produced Rs. 20,678, a slight increase on last year's figures. The area under cultivation has increased, but has not yet returned to the average before the enhancement of duty in 1910. Poppy cultivation in Simla is subject to an acreage duty of Rs. 2 and the opium to a further transport duty of Rs. 2 per seer levied at the Kot Khai warehouse. Proposals for the abolition of this warehouse, and the equalization of the duties on Native States opium and on British grown opium in the hills are now before the Government of India. The acreage duty realizations amounted to Rs. 871 as compared with Rs. 940 in 1911-12, but, on the other hand, the receipts from the transport duty amounted to Rs. 4,677 as against only Rs. 3,992 in the previous year.

274. License fees for vend of opium increased from Rs. 5,39,447 to Rs. 5,82,784 and the total realizations from opium from 11 lakhs to nearly 12¼ lakhs. The duty and vend fees now bear exactly equal proportions to the total opium revenue, but the increase of duty will improve the percentage under that head. Retail prices show excise opium as considerably cheaper than any other variety. Afghan opium is declining. Hill opium was cheaper wholesale than last year. Large purchases in British districts by inhabitants of Native States raised suspicions of extensive smuggling; but this evil can be checked if, as is hoped, the Darbars will unite with Government in prohibiting the boiling of opium before sale, a measure already in force in the Pátiala State. Vend.

Hemp Drugs and Cocaine.

275. The effect of the Rs. 10 duty began to be felt during the year under report. Duty realised rose from Rs. 4·15 to Rs. 4·51 lakhs. Consumption decreased from 27,619 seers last year to 25,484 seers. The warehouses at Ambála, Lahore, Simla and Delhi have been closed, and only those at Amritsar, Hoshiárpur, Sultánpur and Ráwalpindi are now retained. Charas.

276. The duty on bhang shows a decrease of Rs. 2,700, exports from Gurdáspur and Hoshiárpur having declined. Consumption, especially in the west of the Province, increased largely last year, and in the year under report there was still an increase, in spite of a large diminution in Dera Gházi Khan. Bhang.

277. The number of licenses for sale of cocaine was, excluding Delhi, the same as last year, while sales slightly increased. The new rules framed during the year for the import, possession and sale of cocaine and its allied drugs came into force from 1st April 1913. With the removal of Delhi from the Province the Punjab Administration is no longer directly responsible for the control of the chief centre for cocaine smuggling to the Punjab. It is too much to hope that the insidious cocaine habit will not eventually spread to Province. But at present outside Ambála there seem to be few signs of any organized smuggling. Cocaine.

Excise Offences and Preventive Measures.

278. The number of persons arrested for excise offences was 775, of whom 570 were convicted. The corresponding figures for last year were 788 and 572. But Delhi City was responsible last year for 63 arrests and 41 convictions for offences connected with cocaine alone, so that the actual number of excise cases brought to light shows no decline. On the other hand, the percentage of convictions to arrests (73) shows an improvement on the percentages for 1911-12 and 1910-11 which were 72 and 70, respectively. It is satisfactory to note a considerable increase in the number of arrests and convictions for illicit distillation, especially in Ferozepore, Siálkot, Montgomery and Lyallpur. Detection is being organised and a special agency was established to watch smuggling in the south-east of the Province: considerable assistance was received from the police. At the same time an Excise Intelligence Bureau has been created, and the issues of opium carefully restricted to the ascertained needs of each shop and it is hoped that a better control will soon be obtained of the gangs of expert smugglers of opium into Burma, which are operating from the Peshάwar and Attock Districts.

40.—Salt Revenue.

Cis-Indus and Kalabagh Mines.

279. The working of these mines during the last 19 years has resulted in a net loss to Government of Rs. 4·24 lakhs: however, the raising of the price of salt by 1 anna 2 pies per maund on January 1st, 1912, has had the satisfactory result of enabling the year to close with a net profit of Rs. 2,937 as General.

compared with a loss of Rs. 6,148 in 1911-12. The distribution of salt from this division was to the Punjab and Feudatory States 69 per cent., North-West Frontier Province 1 per cent., Jammu and Kashmír 2 per cent., the United Provinces 19 per cent., Behar 4·9 per cent., and Sind 1·4 per cent. In all, 34·73 lakhs of maunds were issued, which is 0·31 per cent. less than in 1911-12.

The low level tunnel in the Mayo mine was continued for a distance of 690·3 feet at a cost of Rs. 17,452, and an exploration tunnel at the Warcha mine was driven for 429 feet at a cost of Rs. 1,242 : Rs. 2,476 were spent at Mari Hill in working drifts.

Sales.

280. 34·92 lakhs of maunds were sold, or 923 maunds more than last year. There was an increase at all the depôts, except Kálabágh, where 77,045 maunds less were sold. The total price realised at these mines was Rs. 2·53 lakhs, compared with Rs. 2·29 lakhs last year.

Through traffic: salt.

281. The through traffic sales, 30·45 lakhs of maunds, of Khewra salt increased by 2·58 per cent. and formed 94·83 per cent. of the rail-borne traffic of the division, as compared with 93·44 in 1911-12. The number of direct dealers with Khewra and of the marts increased. With half a lakh expenditure against Rs. 47,586 receipts, this account closed with an adverse balance of Rs. 2,777, against that of Rs. 331 of last year.

Mandi Mines.

282. The sales fell short of those of last year by 15·48 per cent., only reaching 93,037 maunds. This was due to the failure in the working of a contractor at Guma. The Drang mine turned out an increased amount of salt, but not enough to fully balance the deficiency at Guma. British districts took 43,600 maunds and Hill States 49,437 maunds. The price was 10½ annas per maund throughout the year.

Sultanpur Salt Works.

283. The sales at these works decreased by 3,090 maunds, or 9·7 per cent., to 28,770 maunds. The industry continues to decline, along with the price of the products. Salt ranged from 3 to 5·5 annas per maund, with an average of 3·83 annas against 4·56 annas, which was last year's average. Working factories decreased by 2 to 15. The Hakimi cess realised Rs. 449 against Rs. 498 last year.

Internal Branch.

284. Fees from licenses realised Rs. 3,782 this year, which is less than the sum paid for licenses last year. Twenty-five saltpetre refineries worked 2·64 lakhs of maunds of saltpetre and produced 94,147 maunds, of refined saltpetre and 91,581 maunds of impure salt; 7,359 maunds of this salt was excised.

General.

Financial results.

285. Exclusive of the operations of the Internal Branch, complete Provincial figures for which are not published, the accounts for the Punjab are as follows :—

Source.	*Receipts.*	*Charges.*	*Nett.*
	Rs. (lakhs).	Rs. (lakhs).	Rs. (lakhs).
Cis-Indus	37·94	4·24	33·69
Mandi	·11	·04	·08
Sultánpur	·29	·12	·16
Paid to Baháwalpur	...	·8	—·8
Total ...	38·35	5·22	33·13

286. The average supply of salt per head of the population in the Punjab is worked out on the average of the last three years at 9·11 lbs., and the average price noted at nine centres was Re. 1-9-8 or one pie per maund less than last year and equal to the price in 1910-11. Supply and price.

41.—Stamp Revenue.

287. The figures given in this section differ in some respects from those tabulated by the Accountant-General in section 36. They are taken from the Stamp Report which adopts a different method of classification. Some Rs. 5,000 due to recoveries from pauper suits are included in income in the Stamp Report, but not under stamps in section 36: similarly the Stamp Report includes refunds in stamp expenditure, which are omitted therefrom in section 36, and does not include charges for plain paper which come into the total expenditure on stamps as given in that section. There was no slackening in 1912-13 of the steady increase in receipts under the Court-Fees and Stamp Acts, which has been noticed for several years. The total income was Rs. 55·28 lakhs, an advance of Rs. 2·66 lakhs on the figures of last year. The total expenditure reached Rs. 2·14, an increase of ¼ lakh, principally due to refunds on unused stamped forms belonging to Marriage and Relief Funds and Insurance Companies which ceased to exist during the year, owing to the new legislation for their control. The net receipts are Rs. 2·4 more than in 1911-12, although the figures for the old Delhi District for the first six months of the year only are included. General.

288. The income from court-fee stamps reached Rs. 36·24 lakhs, an excess of Rs. 2·26 on last year. Increases are shown in 24 districts and are generally attributed to more and more valuable civil suits, and the raising of the court-fees on land suits. Settlement operations account for a rise in civil litigation. Court-fee stamps.

289. The income from non-judicial stamps was Rs. 19·03 lakhs, more by Rs. 34,751 than last year. The large decrease of nearly ½ lakh shown against Delhi was more than counter-balanced by the increase of Rs. 89,000 in the sale of non-judicial impressed stamps on sheets. This is spread over 23 districts, and exceeds Rs. 10,000 in Ferozepore, Lahore and Lyallpur, and is said to be due, respectively, to the substitution of deeds for account books in mortgages and sales, to the sale of stamps of high values to residents of districts other than Lahore, and to sales and mortgages by colonists on acquiring proprietary rights. Non-judicial stamps.

290. The total number of unstamped or insufficiently stamped documents dealt with during the year was 2,611, on which duty and penalty realised came to Rs. 26,113, or about Rs. 4,000 more than in 1911-12. Penalties.

42.—Assessed Taxes.

291. The total collections for the year amounted to Rs. 16·9 lakhs which includes one lakh levied in the Delhi area up to the end of the calendar year 1912, the sum due for the last quarter of which is in process of adjustment. The collections from salaries and pensions paid by Government amounted to Rs. 2·84 lakhs and those from interest on securities to Rs. 16,000. As regards the remaining heads, the final demand for the year 1912-13 was Rs. 12·88 lakhs, a decrease of Rs. 13,000 as compared with last year's figure, which included Rs. 1·58 lakh due from Delhi. Thus if Delhi be excluded from the figures of both years, there is a satisfactory increase of Rs. 1·45 lakh. This growth occurs mainly in taxation or general sources of income, but there is also an increase of Rs. 16,000 under "Profits of companies," mainly owing to the raising of the assessment of the Southern Punjab Railway. General.

Incomes between Rs. 5,000 and Rs. 10,000 show a marked decline in numbers, resulting in a decrease of tax from Rs. 2,35,000 to Rs. 2,02,000. The most remarkable decrease is in the XIIth class (Rs. 50,000—Rs. 1,00,000), whose income tax has dropped from Rs. 28,000 to Rs. 9,000. This drop is more than made up by the XIIIth class (Rs. 1,00,000 and more), where the proceeds of the tax this year are Rs. 89,000 as against Rs. 60,000 in 1911-12.

Notable increases in district totals are found in Ferozepore (Rs. 27,000), Lahore (Rs. 28,000), Multán (Rs. 16,000), Amritsar (Rs. 6,000) and Shahpur (Rs. 8,000). In Ferozepore the increase comes entirely from the Southern Punjab Railway, while in Lahore and Multán the results are due to the deputation of special officers for income-tax investigation and revision work. Outstandings are high in Jhelum, Gujrát and Lyallpur and proportionately high in Simla.

Objections continue to show a high percentage, but little can be deduced from the mere accumulation of petitions. In Kángra, Lahore, Multán and Muzaffargarh, however, the percentages range from 40 to 66. In Siálkot the figure is only 2·8, and is attributed to the group system of assessment introduced by Colonel Popham Young, the Deputy Commissioner: the experiment will be watched for another year. The total demand for the Province as finally fixed was less by 8 per cent. only than the initial demand.

Special enquiries.

292. The system which was inaugurated last year of deputing special officers to revise the income-tax assessments in important towns has been extended. Operations which began with Lahore, Lyallpur and Multán have now been extended to Ambála, Amritsar, Gujránwála, Ráwalpindi, and several smaller places. The experiment has certainly justified itself, though the results are not uniform. In Lahore the amount remitted on appeal was one-third of the original enhancement.

43.—Forest Revenue.

Gross.

293. The total revenue of the forest year ending June 30th, 1913, was Rs. 12·58 lakhs, and the total expenditure was Rs. 8·09 lakhs, yielding a cash surplus of Rs. 4·49 lakhs. *The following table gives details :—*

Revenue.	Rs. (lakhs).	Expenditure.	Rs. (lakhs).
I—Produce removed by Government agency ...	2·77	A—Conservancy and Works	3·35
II—Produce removed by consumers ...	8·39	B—Establishment	4·73
III—Drift, etc.	·46	Cash balance	4·49
IV—Forests not managed by Government ...	·02		
V—Miscellaneous ...	·93		
Total ...	12·58	Total ...	12·58

Income rose by Rs. 2 lakhs, expenditure by Rs. ·3 lakh and the cash surplus by Rs. 1·71 lakh, for reasons which have been given above in section 30.

Briefly, the excess in revenue is due to better working of resin, to improved fellings in Kulu, special sales of deodar in Kángra, better rains which improved the grass, and to a change of policy, whereby trees are sold standing instead of being worked out departmentally. The cost of establishment has risen.

294. The net results of the year's working is— Nett.

	Rs. (lakhs).
Cash surplus	4·49
Increase in value of live and dead stock	·15
Increase in outstandings of revenue	·90
Increase in outstandings against contractors, etc.	·08
Total ...	5·64
Deduct—	
Decrease in value of stock	·84
Net result in favour of the year ...	4·79

44.—Provincial Revenues.

295. The income and expenditure under the Provincial section of the accounts in the last two years are as follows :— General.

	1911-12. Rs. (lakhs).	1912-13. Rs. (lakhs).
Opening balance	69·75	1,03·73
Income	3,99·74	4,35·00
Assignments from Imperial	37·78	74·73
Total ...	5,07·27	6,13·46
Expenditure	4,03·54	4,35·56
Closing balance ...	1,03·73	1,77·90

296. There is an increase of Rs. 37 lakhs in assignments from Imperial revenues. Of this sum, Rs. 6·77 lakhs represent the final adjusting entry under the Provincial settlement, and Rs. 1·40 lakh the annual credit given to Provincial revenues under the Famine Insurance Scheme : Rs. 5·22 lakhs are to cover the loss of municipal contributions and also some additional expenditure involved by the relief of Municipalities from Police charges. These subsidies do not ordinarily vary from year to year. Almost the whole Assignments.

of the balance was given for specific expenditure. The improvement of sanitation and education absorb Rs. 14½ lakhs and Rs. 32 lakhs respectively and the Punjab University received a grant of Rs. 2·35 lakhs. Finally Rs. 12 lakhs were assigned in aid of general Provincial resources.

Income.

297. The principal increases in major heads of income have been discussed in the various sections of this report relating to the subjects concerned, and paragraph 36 shows the plus and minus results as compared with last year's figures. The most striking increases are connected with Irrigation 56 lakhs, Excise 6 lakhs, Land Revenue 3·86 lakhs, and Stamps 2·66 lakhs.

Expenditure.

298. The expenditure exceeded the revenue raised in the Province by half-a-lakh only this year against Rs. 3·8 lakhs last year. The chief increases are Rs. 10·89 for Education, Rs. 9·58 for Major Canal Works, Rs. 6·18 for civil works, Rs. 4½ lakhs under Medical, Rs. 2·1 lakhs under Miscellaneous: while a decrease of over a lakh was effected under General Administration.

45.—Local Funds.

General.

299. The creation of Imperial Delhi has involved the loss of one tahsil and one thana only of the area under the control of district boards, whose total revenues have not been seriously diminished thereby: the returns for this year may therefore be usefully compared with those of last. The gross income has risen from Rs. 53·7 lakhs to Rs. 64·4 of which Government contributed Rs. 7·08 lakhs under Education, Rs. 45,000 under Medical, Rs. 1·05 lakh under Scientific Departments, and Rs. 11·2 lakhs for Public Works: Rs. 19·78 lakhs in all. The incidence of taxation remained unchanged at 2 annas 5 pies per head. The total expenditure was Rs. 62·62 as against Rs. 54·44 in 1911-12.

Local Rate.

300. From the local rate the amount obtained was Rs. 29½ lakhs, which is Rs. 1·94 lakhs in advance of the recoveries of the previous year. The local rate has been enhanced in Ferozepore, Siálkot, Lahore, Amritsar and (since the close of the year) Jullundur.

Education.

301. The increase in receipts under *Education* was no less than Rs. 3·47 lakhs, of which Rs. 38,000 was due to fees and the remainder to Government grants. Expenditure, however, rose by Rs. 1·92 lakhs only. This is largely due to the fact that boards were not prepared to spend so much; teachers take time to train, and without them it is useless to open schools. The figures for expenditure given in last year's Administration Report related to maintenance and management only, which this year have cost Rs. 12·45 lakhs. There are besides scholarships, grants-in-aid and contributions, including which items the disbursements rose from Rs. 13·15 lakhs to Rs. 15·07 lakhs.

Medical.

302. Receipts under the head "Medical" decreased from Rs. 1,25,199 to Rs. 1,05,571. The falling-off is mainly in "Endowments" Rs. 12,774 and in "Contributions from Government" Rs. 4,089. The expenditure, however, increased from Rs. 5,86,000 to Rs. 6,16,000. The largest increases were in contributions to Government and to lunatic asylums and other contributions. The vaccination expenses increased but not so much as to balance the decrease in plague charges.

Veterinary.

303. Receipts from Veterinary Hospitals rose slightly to Rs. 7,961 and expenditure from Rs. 56,825 to Rs. 61,690, the charges for stallions and bulls amounting by Rs. 10,000 to Rs. 1,13,896.

Civil Works.

304. Income under Civil Works was Rs. 18·01 lakhs against Rs. 12¾ lakhs last year, while expenditure rose from 22·4 lakhs to 27·06 lakhs. Taking receipts, an increase of Rs. 8,500 was obtained from ferries and of Rs. 20,500 from rent of buildings and lands (other than *nazul*), sale of buildings and other property (not escheated) brought in an extra Rs. 82,600, sarai fees Rs. 2,600, sale proceeds of trees, grass, etc., Rs. 12,600 and miscellaneous receipts an increase of Rs. 55,400, but the major part of the very large rise is due to more liberal grants from Provincial Revenues, amountiug to Rs. 11·2 lakhs or nearly Rs. 3½ lakhs more than last year. The Government grant was more than spent on roads which took up Rs. 11·29 lakhs, the new construction costing Rs. 2⅓ lakhs and maintenance nearly 9 lakhs. The question of increasing the subsidy for feeder roads is being considered, as boards seem to find that upkeep of roads is beyond their present resources. There is of course a large field for expenditure of money on metalled roads in every district in the Province, and Government is fully alive to the desirability of extending roads where possible, and particularly of not neglecting roads that run parallel to railways.

Arboriculture.

305. Expenditure on arboriculture has risen to Rs. 2,09,541, which is a return to the high figure of two years ago. Not many districts show a profit on the year's working, but Siálkot and Hoshiárpur each had an income of Rs. 30,000 against an expenditure of Rs. 18,000 and Rs. 9,000, respectively. Lyallpur spent no less than Rs. 20,000 on arboriculture during the year.

Balances.

306. The Gujrát balance was again below minimum. Balances are high in Lahore, Hissar, Rohtak, Gurgaon, Multán and Lyallpur. The Attock District Board, which was for many years in a state of bankruptcy, is now flourishing. In future years Government will forego the contribution of 20 per cent. on the local rate, thereby materially assisting the revenues of district boards.

46.—Municipal Funds.

Income.

307. The aggregate income of the municipalities in the province rose from nearly 72 lakhs in 1911-12 to nearly 84½ lakhs, or, excluding the opening balance, 66·02 lakhs. The figures for Delhi have been excluded this year, and the net rise is Rs 8·17 lakhs, chiefly due to larger octroi collections and grants from Government. Octroi furnished Rs. 36·89 lakhs (an increase of Rs. 2·56 lakhs) out of a total income from taxation of Rs. 41·15 lakhs. Municipal property and powers apart from taxation brought in one lakh more than last year: grants and contributions 4·68 lakhs. The incidence of taxation in municipalities has increased from Rs. 2-6-2 per head of population to Rs. 2-8-11 per head: in notified areas it has remained steady at 6 annas-and-a-half. Grants from Government for general purposes amounted to nearly seven lakhs, for Education Rs. 42,000 and for Medical Rs 27,000. The Sanitary grants have been described in section 51.—Sanitation.

Expenditure.

308. The expenditure has risen from Rs. 54 lakhs to Rs. 59·78 lakhs. General administration and collection charges rose by ¼ lakh, protection from fire by Rs. 30,000, lighting by Rs. 22,000, capital outlay on water-supply by Rs. 72,000, drainage by nearly 2 lakhs, conservancy by Rs. 46,000, hospitals by Rs. 66,000, arboriculture by Rs. 33,000, Public Works by Rs. 1·56 lakh, Public Instruction by Rs. 94,000. Out of a total rise of Rs. 5·81 lakhs, five lakhs are shown under the head Public Health and Convenience. The main decreases are Rs. 70,000 under Police charges, Rs. 29,000 for water-supply establishment, repairs, etc., Rs. 68,000 for markets and slaughter houses Rs. 9,000 interest, Rs. 45,000 unforeseen charges. The proportion of expenditure devoted to administration and collection was 11 per cent., Public Safety 5·7 per cent., Public Health and Convenience (including Public Works 14 per cent.) 58·4 per

cent., Public Instruction 10 per cent., contributions for general purposes 2·6 per cent., Miscellaneous 6 per cent., Extraordinary and Debt 5·5 per cent.

Balances.

309. Closing balances increased from 18 lakhs to 24·71 lakhs. All municipalities and notified areas closed the year with good balances except Núrmahal and Gurdáspur and the notified areas of Nawashahr and Gujar Khan, Sujánpur, Srígovindpur and Chakwál, the three last having had low balances last year also. A large number of municipalities maintain unduly large balances which might be used for purposes of public utility or reduction of taxation.

Loans.

310. There were no loans of any importance during the year. The Hazro Committee received a small loan of Rs. 1,744 from Government.

CHAPTER VI.

VITAL STATISTICS AND MEDICAL SERVICE.

Detailed information on the subjects dealt with in this chapter will be found in the reports and statistical tables noted below :—

PROVINCIAL REPORTS.

Census.—Report on the Census of the Punjab, 1911, by Rai Bahadur Pandit Hari Kishan Kaul, C.I.E.

Births and Deaths.— *Sanitation.*— } Report on the Sanitary Administration of the Punjab and Proceedings of the Sanitary Board for the year 1912.

Emigration.—Census Reports as above.

Medical Relief.— { Notes on the Annual Statements of the Dispensaries and Charitable Institutions of the Punjab for the year 1912. Report of the Pasteur Institute, Kasauli, for the year 1912. Report on the working of the Punjab Lunatic Asylum for the year 1912.

Vaccination.—Notes on Vaccination in the Punjab for the year 1912-13.

PUBLICATION OF THE GOVERNMENT OF INDIA.

Statistics of British India, Part V, Area, Population and Public Health.

47.—Details of Census.

[*Vide* pages 157-67 of the Administration Report for the year 1911-12.]

48.—Births and Deaths.

General.

311. An effort has been made to calculate the present population by setting off births against deaths, and the result shows an increase in every district since 1911, except Simla where the circumstances are special. The differences are slight compared with what they will be a few years hence. The system does not take account of emigration and immigration, and does not admit of comparisons with other provinces. It serves, however, to explain abnormal rates in some cases.

With the exception of small-pox, which caused a death-rate of 1·57, a rate much higher than that recorded in the three preceding years, the year 1912 like its predecessor was a very healthy one. The total death-rate was only 26·63, the lowest recorded since 1886 when it was 26·61, while the birth-rate was as high as 45·3. The incidence of plague and malaria was comparatively slight; fevers accounted for much less mortality than in recent years, while plague showed a reduction of 7·35 compared with the previous year. The vital statistics of the area now comprising the new province of Delhi have been entirely excluded from this report.

Births.

312. Of the 876,125 births registered in 1912, 458,052 were males and 418,073 females. The total birth-rate amounted to 45·3 *per mille* which is 3·8 in excess of the mean for the previous five years and 1·4 in excess of that recorded last year. This excess in the birth-rate is due to the practical absence of malaria in the preceding autumn and to the healthiness of the latter half of the previous year and the year under report.

The rise was general all over the province, but the rate varies from 30·6 in Dera Gházi Khan to 53·1 in Karnál. It may be noted that these two

districts occupied the same places in the death-rate list, with rates of 19·8 and 33·8 respectively. Among the towns the recovery of Amritsar from the effects of the terrible fever epidemic of 1908 is remarkable. The birth-rate there was 9 *per mille* in excess of the mean rate for the five years 1907—1911. There is no European country that can vie with India in respect of the birth-rate. During the five years ending 1905, the rate was highest in Germany, Austria and Spain, but nowhere did it much exceed 35. The Punjab this year ranked third among the Indian Provinces in the matter of birth-rates.

The excess of births over deaths amounted to 18·7 *per mille*, and with the exception of Simla, where the birth and death-rates were the same, in every district the birth rate was higher than the death-rate. Male births exceeded female by nearly 40,000 or 2·1 per cent. There are now, owing to the loss of Delhi and old Dera Gházi Khan, 38 municipal towns with a population of over 10,000, and in these towns the birth-rate was 45 compared with 42 and 40, the rates for the preceding year and quinquennium. Of the largest towns, Amritsar recorded a rate of 47, Multán 46 and Lahore 39 *per mille*.

Deaths.

313. The total number of deaths was 515,036, the total death-rate being 26·6 *per mille*, the male 25·4 and the female 28·1. The total rate was 34·1 and 42·7 for the previous year and quinquennium. Of the total death-rate 14·2 or rather more than half was due to fevers, and 6·2 or a little less than a quarter to all other causes: the plague rate was only 1·5, being less than that of small-pox. The Punjab rate was seventh on the list of Provincial death-rates, and was lower than the rates in Spain, Hungary and Russia a decade ago. In the towns of Great Britain of over 60,000 inhabitants the rates are 9·1 to 21 deaths *per mille*: in the corresponding three towns of the Punjab the rate was from 26·2 to 38·3, which are the figures for a healthy year.

As mentioned already, the lowest rate was in Dera Gházi Khan 19·8 and the highest in Karnál 33·8. The reduction in plague mortality shows itself especially in the Gurgaon, Amritsar and Rohtak Districts, where the decrease in the death rate varies from 18·5 to 20·3, on the quinquennial average preceding. There was no great variation in the monthly death-rates, the highest being 2·75 in December and the lowest 1·77 in February, which was a dry warm month. Plague occasioned a slight increase in the second quarter, fevers and small-pox in the last quarter. The female infant mortality is again less than that of males, being 201·13 against 210·44. The urban death-rate was 31·94 and the rural rate 26·12.

Cholera.

314. There were 1,833 deaths recorded from cholera in 1912, 573 more than in the previous year. In several cases failure to report outbreaks of the disease accounted for many deaths, and punishment was duly meted out to the village officials responsible.

Small-pox.

315. Small-pox carried off 30,339 people, the largest annual number since 1896: the mortality was greatest among infants under one year of age. The spread of the disease was probably much assisted by inoculation, which was practised in several districts. Ferozepore District was seriously infected. Towns in which the Vaccination Act is not in force show small-pox death-rates varying from 8 to 18 *per mille*, while those where vaccination is compulsory had an average of 2·48 only. An inspection post at Tára Devi effectually protected Simla, which only had 54 cases.

Plague.

316. Plague caused 35,123 deaths as compared with 198,669 last year. The destruction of rats in their holes by smoke seems most efficacious, and the system will be further utilized next year. The attitude of the people towards the plague staff is very much more cordial than in previous years: this is due to further acquaintance, of course, and to the policy of free attendance by the plague staff in general medical and surgical relief.

Fevers.

317. Deaths from fevers decreased to 275,040, with a rate of 14·22 *per mille*, against 15·33 and 21·66 in the previous year and quinquennium. This was due to the favourable character of the seasons.

Other causes.

318. The deaths from dysentery and diarrhœa were 9,785 and 119,926 were due to "all other causes."

Mortality by classes.

319. Among Indian Christians the conditions of life come closer to the sanitary standards than among Hindus and Muhammadans, though their material condition is probably much the same. The death-rate among this class was 19·40, while among Muhammadans it was 26·06 and among Hindus 27·46.

49.—Emigration and Immigration.

(There is nothing to report under this heading.)

50.—Medical Relief.

Dispensaries.

Number of institutions.

320. The number of dispensaries increased during the year by 4 to 469, 13 having been opened and 9 closed: the following four paragraphs deal with three classes of dispensaries only, namely, one State public, 271 Local Fund (5 of which are new), and 35 private aided dispensaries. The remainder are classed as special State, private non-aided and railway—police 31, canal 77, others 3, railway 44, and private aided 7.

Patients.

321. An increase of 411,000 in the total number of patients treated is reported, but the figures seem doubtful in some cases, and though the popularity of hospitals is growing there seems some reason for attributing the increase partly to faulty returns. Eighty-nine of the dispensaries have no accommodation for in-door patients, and the average number of beds in the remainder is 20, the total number having increased by 143. 84,967 is the return for in-patients treated, an increase of 10,083 on last year. There is undoubtedly over-crowding in some dispensaries, especially in the spring and autumn, when patients flock in for treatment. But attention has also been drawn to the fact that the accommodation at some hospitals is not fully utilised. Separate arrangements are generally made for females, and *dais* and female compounders are being increasingly employed. At 7 district hospitals there are fully qualified lady doctors, and female Sub-Assistant Surgeons at 6. The out-patients are returned as having increased by nearly 400,000 to 4,424,584.

Surgery.

322. A quarter of a million operations were performed, an increase of nearly 20,000 on last year and of 56 per cent. on the average of three years preceding 1901 : of these, selected operations numbered 33,430, an increase of 29 per cent. The death-rate was ·22 per cent. The selected operations include 14,874 for the extraction of the lens, an increase of 28 per cent., the percentage of good vision gained also rising from 92·47 to 94·2. 230 more operations for stone were carried out than last year, the subsequent deaths only increasing by 7 : for hernia the operations increased by 114 to 376, and ovariotomies by 14 to 64, with no increase in deaths : abdominal sections rose by 59 to 126, and the subsequent deaths by 13 to 21. The largest number of operations for cataract were performed at Moga Hospital, 2,900, and for stone at Multán : in the matter of operations Colonel Smith at Amritsar and Sub-Assistant Surgeon Mathra Das at Moga again head the list.

Finance.

323. The year opened with a cash balance of Rs. 1,36,113. The total income during the year from all sources was Rs. 13,80,088. Of this Government contributed Rs. 1,45,622 against Rs. 1,31,309 in the preceding year, or 10·55 per cent. of the total ; Local Funds Rs. 4,51,014 against Rs. 4,05,719, or 32·68 per cent. ; Municipal Funds Rs. 4,88,774 against Rs. 4,28,593, or 35·41 per cent. ; interest on investments amounted to Rs. 9,885 against Rs. 11,886, or ·71 per cent. ; subscriptions received amounted to Rs. 1,25,574 against Rs. 1,35,963, or 9·09 per cent. (Europeans Rs. 88,758 or 6·43 per cent., Indians Rs. 36,816 or 2·66 per cent.) ; sale of securities brought in Rs. 1,59,219 against Rs. 94,939, or 11·53 per cent. There has been some increase in the Indian subscriptions,

but the amount is still very low, having regard to the circumstances of the people and the great popularity of the dispensaries. Local subscriptions for the improvement of public hospitals and dispensaries only came to just over Rs. 29,000, and the special benefactions mentioned by the Sanitary Commissioner are confined almost exclusively to the south-eastern districts of the province, where the traditions of public spirit in regard at least to medical relief appear to be much stronger than in the more prosperous and enterprising districts of the Punjab proper. Districts where less than Rs. 200 was subscribed during the year included Amritsar and Siálkot. The expenditure amounted to Rs. 13·42 lakhs against Rs. 11·79 lakhs, last year. The increase was mostly for buildings (one lakh).

Mayo Hospital.

324. The Mayo Hospital extensions which are being carried out will be completed next year and the Province will then be provided with a hospital worthy of it. The site for the new College building is being cleared. Other alterations and additions in connection with the King Edward Memorial Scheme will be taken in hand on the Veterinary College site becoming available and when completed the College will be much improved in all departments.

Special dispensaries.

325. Of the total number of patients treated in the State Special and Railway dispensaries, Police hospitals contributed 47,395 as against 44,594 in the preceding year, Canal dispensaries 203,044 against 200,497 in 1911, other State special hospitals 9,535 against 9,468, and Railway dispensaries 212,568 against 177,267 in the preceding year.

There were 10 Canal dispensaries open to the public at the beginning of the year, but 6 of these were closed—5 in the Lyallpur District and 1 in the Karnál District, the former on account of the District Board ceasing to contribute its share from 1st April 1912.

Unaided dispensaries.

326. At 7 of the 12 private non-aided dispensaries, which have submitted their returns, 57,090 persons were treated and 3,403 operations were performed against 66,604 and 2,681, respectively, in the preceding year. These 7 dispensaries provided 18 beds for males and 54 for females and treated 280 men and 3,882 women as in-patients and 27,658 men and 25,270 women as out-patients.

The field for work.

327. The returns show that only 1,284 cases of small-pox were treated at dispensaries. The total number of deaths in the province exceeded 30,000. Taking the case-mortality as about 15 per cent., there must have been about 200,000 cases, so that not much more than 1 in 150 received treatment at dispensaries. This is exclusive of the cases treated by the travelling dispensaries, but the figures show what a great field is open for a system under which treatment of sick people in their villages is possible.

Pasteur Institute.

328. During the year 3,550 patients underwent anti-rabic treatment at the Pasteur Institute at Kasauli, as against 2,268 in the year preceding. Of this number 400 were Europeans and 3,150 Indians. There were 16 failures, all amongst Indians. In addition to the number treated 360 were advised that treatment was not necessary. In its capacity of Provincial Laboratory, the Institute reported on 1,104 specimens as against 669 last year: the majority were as in 1911 connected with serum diagnosis for typhoid, Malta fever and paratyphoid, examination of blood for malaria and tumours and of brains for Negri bodies.

Lunatic Asylum.

General conditions.

329. The daily average of inmates rose by 15 to 683, the proportion of males to females being less than four to one, against the five to one proportion noticed in last year's report. There were, however, 11 criminal male

lunatics to 1 female. The death-rate was low, at 10·4 and would have been lower but for two unfortunate murders, and an outbreak of cholera. The most striking result of the year is the number of cures, 155, which is higher by 68 than the preceding quinquennial average. At the same time there were 22 re-admissions. As regards age, 171 of 248 admissions were between 20 and 40, and 49 between 40 and 60, leaving only 21 below 20 years and 7 above 60. Forty-nine new cases were due to spirit and intoxicating drugs, out of 134 assignable to particular causes.

Improvements.

330. Masonry flooring and dadoes have been provided to all the interior, and for the verandahs of the barracks and sleeping rooms. One European and two additional attendants have been sanctioned, in order to improve the staff and ensure control, particularly of the European inmates. A net sum of Rs. 8,937 was realised by manufactures carried on in the asylum, and the total expenditure rose by Rs. 8,400 to Rs. 1·35 lakhs The Franciscan Sisters continued to work in the Female Asylum with their usual devotion.

51.—Sanitation.

Municipalities.

331. The income derived from sale of street sweepings in 1912 amounted to Rs. 1,52,636, which is Rs. 7,376 more than the figure of 1912 and less than that of 1910 by nearly Rs. 14,000. Comparing the figures for conservancy receipts other than taxes and rates for 1912-13 with those of 1911-12 and excluding Delhi, there is an increase of Rs. 5,052 only. At the same time the statistics of sewage irrigation show a distinct advance, 196 acres being added to the area under sewage irrigation and Rs. 9,600 to the income therefrom. The major part of this increment is provided by Ambála which added 96 acres to area and Rs. 7,232 to income : the area in Ambála is 53 acres short of that in Lahore (580 acres), but the income (Rs. 14,094) is more than double the Lahore income (Rs. 5,463) from this source. Lyallpur is making good progress, having increased its acreage from 31 to 81 and its income from Rs. 2,465 to Rs. 2,950, which amounts to Rs. 36 per acre, against Rs. 26 obtained by Ambála and Rs. 9-4-0 by Lahore. The possibilities of this source of income have evidently not yet been exhausted.

Out of an aggregate income of Rs. 84·5 lakhs the Municipalities spent some Rs. 23 lakhs on objects included in the term sanitation (against 19 lakhs last year, excluding Delhi), *viz.*, on conservancy Rs. 7·8 lakhs, water-supply Rs. 4·48 lakhs (including Rs. 2 lakhs capital expenditure), on drainage Rs. 5 lakhs (including 3·77 lakhs capital) and 5¾ lakhs on roads.

District Boards.

332. District Boards expended Rs. 12,485 on sanitation, Rs. 9,814 on water-supply, and Rs. 12,739 on drainage works, compared with Rs. 8,800, Rs. 13,323 and Rs. 4,546 last year.

Rural sanitation.

333. During 1912 the wells cleaned numbered 7,394 against 4,811 last year, while parapets were constructed for 1,287 wells against 662 : the cost of these comparatively large operations was, however, only Rs. 30,080, compared with Rs. 38,302 spent last year under these heads. Rewards for village sanitation were not granted.

Fairs.

334. The Thánesar Sun Eclipse Fair was sparsely attended and no infectious disease was detected. Very complete sanitary arrangements were made. Rai Bahadur Thakur Das, retired Civil Surgeon, again superintended the medical and sanitary arrangements at the Choa Saidan Shah and Katas Fairs in Jhelum. The Gulu Shah Cattle Fair in Siálkot was stopped owing to cholera in Siálkot and the neighbouring districts.

Sanitary Board.

335. The Sanitary Board met twice in Lahore and twice in Simla, and allotted in the first three months of 1912 the remainder of the grant for 1911-12 : but only Rs. 66,000, were allotted of the fresh grant of a lakh-and-a-half for 1912-13. This sum included Rs. 6,254 more for Siálkot drainage, Rs. 12,049 for Amritsar water-works, Rs. 39,000 for Chiniot drainage scheme, and

Rs. 4,265 for the water-supply of the last-named town. Schemes which have received administrative and technical sanction are estimated to cost 13 lakhs and 3·7 lakhs, respectively, while in addition the Amritsar sewerage scheme (to cost Rs. 2·2 lakhs) has been referred to the Chief Malaria Medical Officer for opinion.

Tube wells.

336. A grant-in-aid of Rs. 7,000 was sanctioned by the Sanitary Board and approved by Government in June 1912, to acquire land and sink wells for the Gulu Shah Fair in the Siálkot District, but was not allotted pending the decision of Government as to whether the wells should be of the ordinary type or tube wells.

52.—Vaccination.

Work of the staff.

337. There were over 30,000 deaths from small-pox during the year the highest number recorded since 1896. The number of vaccinations performed was in consequence unusually high, being 39 per cent. in excess of the average for the preceding quinquennium. The increase—69 per cent. in re-vaccinations—is a striking feature of the year's working. The total number of operations performed by all establishments amounted to 1,032,847, of which 710,994 were primary and 321,853 re-vaccinations. The percentage of success was 97·99 in the case of primary and 73·50 in re-vaccination as against 95·03 and 71·85 in 1911-12, showing a satisfactory improvement. House to house vaccination was carried out only in selected districts. The popularity of the Gurdáspur staff seems to account for the large number of operations (23,428) performed by this method in that district.

Cost of vaccination.

338. The total cost of the department amounted to Rs. 1,25,812 or an increase of Rs. 1,492 as compared with last year. The excess is chiefly under the head of contingencies on account of increased demand for vaccine obtained by local bodies on payment from the Punjab Vaccine Institute.

The average cost of each successful operation performed during the year was 2 annas and 4 pies as compared with 2 annas and 8 pies in the previous year. If the amount of Rs. 18,363 on account of the cost of the vaccine sold, which has been credited to Government, be deducted from the total expenditure, the average cost would amount to 2 annas as against 2 annas and 4 pies in 1911-12. The decrease in the average cost of a successful operation is due to the larger number of operations that have been performed during the year under report.

Vaccination in towns.

339. Eighty-three per cent. of the total number of children under one year of age available for vaccination were successfully operated on in towns where the Act is in force, as compared with 70 per cent. where vaccination is optional.

Vaccine Institute.

340. The principal buildings of the Punjab Vaccine Institute at Lahore were completed during the year 1912 at a cost of Rs. 52,464 and were ready for occupation and work by the 1st October; certain additional improvements are being carried out.

The Institute supplied vaccine lymph to all the civil districts and to 26 Native States in the Punjab, to the North-West Frontier Province, Kashmír and Jammu, Balúchistán, Sind, Kathiáwár, Nepál, Tibet and Afghánistán, to Military Medical Officers in the Punjab and North-West Frontier Province, to private individuals, and to the Bangalore and Belgáum Vaccine Institutes. The percentage of case success has risen considerably, and is due to the better conditions in the new Institute buildings.

CHAPTER VII.

INSTRUCTION.

Detailed information on the subjects dealt with in this Chapter will be found in the report and statistical tables noted below :—

PROVINCIAL REPORTS.

Education.—(1) Report on the Progress of Education in the Punjab for the year 1912-13.

(2) Report on the Operations of the Department of Agriculture, Punjab, for the year ending June 30th, 1913.

(3) Annual Report of the Punjab Veterinary College and of the Civil Veterinary Department, Punjab, for the year 1912-13.

Arts and Sciences.—Report on the working of the Lahore Museum for the year 1912-13.

PUBLICATIONS OF THE GOVERNMENT OF INDIA.

Education, Literature and Press.—Statistics of British India, Part III, Educational.

53.—General system of Public Instruction.

[*Vide* pages 173—184 of the Administration Report for 1911-12.]

54.—Education.

GENERAL SUMMARY.

341. The year has been one of considerable development in many directions. The liberal grants sanctioned by the Government of India for education have rendered it possible to open a large number of new primary schools, to provide grants for aided schools on a larger scale than formerly, and to give effect to building schemes all over the province. Institutions and pupils show a numerical increase which would have been larger if the separation of the new Delhi province had not lowered the statistics ; and educational expenditure has risen by 22 per cent. **General conditions.**

342. The following table shows the number of schools and colleges in existence during the year :— **General statistics.**

	For Males.		For Females.	
	No.	*Attendance.*	*No.*	*Attendance.*
Arts Colleges ...	9	2,773	...	...
Professional Colleges ...	6	843	1	32
High Schools ...	102	46,934	15	1,591
Middle Schools ...	215	46,840	41	5,710
Primary Schools ...	3,689	197,663	709	31,685
Schools for special instruction	45	3,289	13	492

The total increase of institutions amounts to 352 and of pupils to 21,685 : the real increase if the exclusion of Delhi be taken into consideration is much greater ; private institutions show an increase of 561 schools or 7,693 pupils. The percentage of children at school on the total number of school-going age has risen in the case of boys from 19·8 to 21·3 and of girls from 4 to 4·3.

Finance.

343. The total expenditure has risen from Rs. 68·6 lakhs to Rs. 84·2 lakhs, of which sum Provincial revenues provided 35·3 per cent., District Funds 19·2, Municipal 4·6, Fees 24·5, private donations 13·9, and Imperial revenues 2·2 per cent. Thus three-quarters of the education of the province is given free of cost to the recipients. The "Provincial revenues" include large grants from the Imperial Government, namely, Rs. 9 lakhs sanctioned in 1911 for buildings: Rs. 60,000 (recurring) for aided Anglo-Vernacular schools, and the recurring "Durbar" grant of Rs. 3·65 lakhs. Of the 9 lakhs grant, over Rs. 7 lakhs were spent during the year, the balance unspent being due to delay in preparation of plans. Rs. 3·81 lakhs were spent on secondary and nearly Rs. 96,000 on primary school buildings, Rs. 76,000 on girls' schools, Rs. 80,000 on European schools. The recurring "Durbar" grant was mostly spent on grants to local bodies for salaries in primary schools and for Vernacular school buildings. Rs. 35,000 were spent on grants for teachers in European schools. The system of basing grants on teachers' salaries was extended to municipalities, who have also been relieved of the liability to pay grants for secondary departments of Anglo-Vernacular schools. From Provincial revenues Rs. 75,000 was spent on building grants to schools, and also for furniture. The new buildings erected during the year included 146 primary schools, 49 Middle schools, 31 High schools, and 43 hostels.

Primary schools (Indian boys).

Numbers.

344. There was an increase of 273 primary schools (excluding European schools) and of 18,060 scholars: in addition 69 schools are now included in the Delhi Province. The increase is the first-fruits of the Durbar grant, part of which was also spent on buildings and salaries. In one district (Lyallpur) no less than 57 new schools were opened.

Expenditure and results.

345. Expenditure (direct) on tuition in primary schools increased by Rs. 1·29 lakhs, while the fees rose by Rs. 14,722. At the same time there has been a general improvement in the qualifications of teachers, the percentage of certificates being about 60: there is no longer a dearth of recruits, and selection for the training classes is now possible, where compulsion used to be necessary. The curriculum has been simplified. Rs. 2·29 lakhs was given by grants to district boards for buildings of Vernacular schools; the new rates of grants have also stimulated private ventures, but it remains to be seen whether they will survive the increasing popularity of board schools, and the policy of admitting indigenous school teachers to local training classes.

Secondary schools (Indian boys).

Statistics.

346. The increase this year is shown as five schools and 542 pupils, but seven schools in Delhi have been excluded. The Khalsa founded three new high schools, the Hindu community two, and district boards two. A number of private secondary schools have also been opened: in Jullundur they increased by 50 per cent. owing to the recent rise in fees. This circumstance has enabled private schools to be independent and therefore more efficient in matters of discipline. Their expenditure rose by Rs. 1½ lakhs, and part of the increase was spent on raising salaries.

Staff.

347. The reorganisation of the Subordinate Educational Service has ensured annual promotion for teachers in Government service, and revised scales of salary have been introduced generally in schools under local bodies. Provident funds, already established by the district boards, have begun to be instituted in aided schools, which find it increasingly difficult to secure good teachers. The percentage of qualified teachers is stated to be over 66 in the Lahore Division, 65 in Ráwalpindi, and over 59 in Ambála. The gradual transfer of city schools to extra-urban sites should make discipline an easier matter than it is at present.

Collegiate Education.

Statistics.

348. The number of colleges has decreased by two, which are included in the new Delhi Province, and the rise in attendance is for this reason small. The expenditure shows an increase of Rs. 2,745. Fees, however, have gone up by Rs. 26,230. The examination results are better than those of last year, there being no failures, in particular, for the M. Sc.

General.

349. Science teaching and hostels have received most of the money for building this year. Similarly the staff for science teaching has been strengthened in three colleges. Professors of English, Arabic and Botany have been added to the Government College staff, and of Mathematics and Philosophy to the Murray College, Sialkot : St. Stephen's, Delhi, now has a staff of six University men from England.

Punjab University.

350. Affiliation was granted in certain subjects to the Prince of Wales' College, Jammu, the Sri Pratap Singh College, Srinagar, the Kinnaird Girls' High School, Lahore, and to the Government and Forman Christian Colleges, Lahore.

Arrangements have been made, with the aid of the imperial grant, to appoint University Professors of Arabic and Sanskrit.

Funds have been allotted for building an Observatory, and the property of the Convent in Anarkali has been bought for the requirements of the Law and Oriental Colleges. Money has also been allotted for improving the athletic grounds, and removing offices situated in the University premises ; and a house has been built for the Assistant Registrar. The extension of the University library buildings will shortly be begun.

Training Institutions.

Central Training College.

351. There was keen competition to enter the Central Training College, the roll increased from 229 to 276, and 46 students had to live outside the hostel. The cost to provincial revenues per student fell from Rs. 341 to Rs. 302. Of 234 entered for examination 205, or 88 per cent., passed, while 42 out of 49 students sent up obtained the B. T. degree.

Normal Schools for men.

352. A new Normal School for men was opened at Lyallpur during the year, and schemes for several others are being prepared. Those students who show promise are selected and again weeded out in July. In all 422 remained in training. Of these all but one went up for the Junior Vernacular Examination, 85 per cent., successfully. Most of these students are reported to pass well in "principles and practice of teaching," and in "school management," qualities which are much needed in the schools, where to quote the Principal of the Central Training College, "kindergarten" methods are usually unknown, and "Teachers show or tell pupils what to do ; pupils imitate the acts or blindly follow the instructions of their teachers, and even inspectors are liable to estimate the quality of the instruction by the neatness of the specimens submitted to them at the annual examination. Thus the teaching is too often unintelligent, the work of the pupils mechanical, and the estimate of the worth of the exercise based on the wrong data."

Training Classes.

353. Six-month training classes for boys who have passed the Upper Primary Examination were held at 15 centres, 216 out of the 253 students sent up being successful.

Training Institutions for women.

354. In the Lahore Normal School for women the number on the rolls increased to 35 : the training has improved considerably in the last three years. The girls who pass out from the Senior Vernacular class are well trained and work well as Head-Mistresses of Middle Schools, while those in the junior class are mostly teachers sent in from district schools, who return to their posts after

training. There are also training classes at Amritsar, Siálkot and Gujránwála, and a new class, for Christians, was started at Clarkabad. Anglo-Vernacular teachers are trained at the Kinnaird High School, Lahore, where six such teachers were trained during the year.

Training institutions for Europeans.

355. The training class at Sanawar numbered 16 students and all the six students who passed out in 1912 obtained employment in the United Provinces. St. Bede's College, Simla, contained 32 students, and at the certificate examination all the candidates presented were successful, 8 out of 12 gaining distinction. Both these institutions are now valuable assets of European education.

Professional and Technical Education.

Professional Institutions.

356. The Law College contained 164 students, which represents a decrease, due to the abolition of the Vernacular section. The college is moving into the new premises purchased by the University. In the Medical College there was a decrease of 15 students, due, it is reported, to the fact that the college has given up teaching the preliminary sciences, which are now taught by the science colleges for the Intermediate Examination, and the standard not being so high as was formerly inculcated by the Medical College, the Medical faculty have taken to rejecting a large number of students who seek to enter the medical classes. The latter too are decreasing owing to the fact that most people in the Punjab are quite content to have the services of Sub-Assistant Surgeons and Compounders, and often prefer Hakims and Vaids.

The North India School of Medicine for Christian Women, Ludhiána, is enlarging its scope with the help of a grant from Government, and will henceforward be known as the Women's Christian Medical College. The Yunani Class in the Islamia College, Lahore, had 60 students, and the Vedic Class in the Dayanand Anglo-Vedic College, 38.

Agricultural College.

357. The Agricultural College had 61 students reading for the diploma, and special courses were also arranged—a Vernacular course of practical agriculture, for zamindars' sons, one dealing chiefly with improved farm implements, for military overseers, and a five weeks' course of farm tuition for Assistant Commissioners. Eight out of 17 candidates were awarded diplomas. The educational attainments of the students who join are considered to be below the standard required, and it is suggested that the course should be lengthened. The College is in a critical condition. For the current year there is no first year class. The fact seems to be that there is no demand, outside the department, for licentiates in agriculture, and inside the department the salaries are too low.

Engineering Colleges.

358. The new Engineering School at Rasul was opened in April 1912; the number on the rolls was 98. The facilities in the neighbourhood of Rasul for practical training are found to be of great value, and the school has made a promising start. Engineering classes continue to be held in the Dayanand Anglo-Vedic College, Lahore, but the number of students shows an annual decline. Mechanical engineering is taught in the Hindu Technical Institute, Lahore, which had 57 students.

Veterinary College.

359. In the Veterinary College the demand for admission is very great, and the College is unable to provide sufficient graduates for the needs of the country. There were 181 students on the rolls, and the number in each class is about 60. Two European Professors in Imperial Service have been recruited and are training with the Provincial Veterinary Department until accommodation is provided in the new College, and the future classes are definitely decided on. New rules were sanctioned allowing the admission of 17 private and district board students from the Punjab—a class which was being crowded out by students from outside. The percentages of success in examinations of

the three years were 94·7, 81 and 86, respectively. Besides the ordinary work of teaching Veterinary Assistants, a class of dressers from the Transport Department was held during the summer vacation, and 50 men were trained : another class of 12 were trained as farriers. There was a satisfactory increase in the number of animals treated in the hospital, but the accommodation is inadequate for proper demonstration. A site for the new College has been selected and plans and estimates placed before Government. A Veterinary Association was formed during the year in order to stimulate the interest and improve the knowledge of Veterinary Assistants.

Industrial training.

360. The Mayo School of Industrial Art had 231 students. The large new workshops were nearly completed by the close of the year, and an additional staff is being engaged. A feature of the year has been the opening of carpentry and other industrial classes in ordinary schools. New board industrial schools have been started at Rewári and Dera Ghási Khan.

Reformatory School, Delhi.

361. There were 142 boys on the rolls of this institution, 6 of whom were out on license with private employees. The Superintendent reports that he can trace 60 out of 66 boys recently sent to their homes, of these only 8 appear to have relapsed. The future location of the school had not been determined at the end of the year.

Commercial training.

362. The Government Clerical and Commercial School (88 pupils) at Amritsar, and the Continuation Classes arranged by the Young Men's Christian Association (57) and the Young Women's Christian Association (36), continue to attract students.

Education of Indian Women.

Statistics.

363. There has been a further increase of ten per cent. in the number of pupils in girls' schools, the total now being 37,485. There are now 745 Schools against 669 last year, including 6 High, 32 Middle, and 707 Primary. In three schools, girls are prepared for the Matriculation Examination, and the Kinnaird High School has training classes. Middle Schools either follow the Code Scheme of Studies or on the lines of the Kanya Maha Vidyala, pay chief attention to languages, music, needlework and religious instruction. The primary schools are as a rule badly found in teachers and teaching materials. There is a large want of kindergarten teachers especially in Municipal schools. Instruction in needlework is well assimilated and cookery and ambulance work is also taught.

Buildings.

364. Grants for accommodation in girls' schools were specially given this year, and the next five years will, it is hoped, see a great improvement in this direction. The biggest institutions are well-housed, but they are few in number as yet.

Some results.

365. Including extra-provincial candidates, 21 girls appeared for the Matriculation examination, of whom 13 passed; six out of seven passed the Junior Anglo-Vernacular Certificate examination; eleven out of eighteen the Senior Vernacular Certificate and fifteen out of twenty-three the Junior Vernacular examination. In the Middle School examination 211 appeared, of whom 146 were successful.

Education of Special Classes.

Education of Europeans.

366. There has been no change in the number of schools: the number of pupils rose by 59 to 2,598, the real increase being apparently greater than this. The total expenditure was Rs. 8·48 lakhs against Rs. 7·69 lakhs last year. Provincial funds supplied 32 per cent. of this sum, and fees 36 per cent. The increased provincial contribution was largely due to an additional sum of Rs. 30,000 being spent in the form of staff grants, including subsistence allowances now given for the first time to members of religious bodies. The financial condition of the schools is improving yearly.

The pass percentage in the High School examination rose from 61 to 66, and in the Middle School examination from 38 to 50. Arrangements have been made to hold the Cambridge local examinations in the Province. There has been an improvement in the teaching of Latin and English, cooking and laundry work, etc. Provincial revenues contributed Rs. 28,444 to the building or improvement of nine schools, the total expenditure on buildings amounting to Rs. 71,685. The Cathedral Orphanages at Lahore were amalgamated with the Cathedral Boys and Girls' High Schools with consequent improvement in teaching efficiency. Altogether, there has been a satisfactory rise in the character of teaching and work generally, in the provision for teachers and buildings, and in the number of pupils.

Muhammadans.

367. The best schools in the Lahore division for Muhammadans are at Qadian and Amritsar: in Ráwalpindi and Multán Muhammadan schools have largely increased, but the lower classes are reported to be still apathetic even in a strong Muhammadan centre like the Multán Division.

MISCELLANEOUS.

Text Book Committee.

368. The committee closed the year with a balance of Rs. 60,521. They considered no less than 641 publications, and recommended 320 as text-books or for school libraries and published 49 new books. Their own publications included an Urdu translation of Major Perry's "Life, Light and Cleanliness," an Urdu Primer and two Hindi Readers for girls' schools. Six thousand three hundred and seventy-five volumes were presented to school libraries and Rs. 3,500 given as rewards to authors.

Conference.

369. A conference on girls' education was held, after the close of the year. It lasted 3 days and 40 to 50 persons attended, mostly ladies. Various interesting discussions took place, and recommendations were made.

Aitchison College.

370. With a new year of 29 the boys now number 115, the age of the new boys averaging 11 years 4 months, which is more satisfactory than the previous year's average of 12 years 1 month. The average daily attendance has gone up from 87·4 to 94·7. The health of the boys was good, but there were three unfortunate deaths, not, however, due to any epidemic at the College. The inspection note shows that the Science teaching is poor, and measures are being taken to improve it. Ten students entered for the diploma, of whom six obtained it, while two passed in the aggregate but failed in two subjects, and two others failed altogether. One boy was second among the Chiefs' College entries, gaining also first place in two subjects. The Patiála Challenge Shield was wrested from Ajmer Mayo College, chiefly by superiority in cricket and tent-pegging. The temple and dharmsala are finished, two rooms in the boarding-houses being thereby set free for ordinary use. The marble floor of the temple was presented by Faridkot State, and the electric light and fans by Sardar Sohan Singh of Ráwalpindi, a student at the College. Electric light and fans have been placed in the boarding-houses and fans in the main building by using a sum of Rs. 10,000 set aside for a building fund in 1910. The financial position is satisfactory, the gain on the year's working being nearly Rs. 5,000.

55.—Literature and the Press.

LITERATURE.

Books registered.

371. The actual number of publications registered has fallen by 33 to 15,32, owing to several Urdu leaflets, etc., which cannot be properly classed as literature, not being admitted. Of the total number 1,079 were original works, 265 republications and 188 translations. There has been a lull in activity

since the Durbar year. The languages employed are chiefly Urdu (38·5 per cent.), Punjabi (34 per cent.) and English (7·3 per cent). : 9·8 per cent. of the works were issued in two languages. About one-quarter of the "Punjabi" books are more Urdu than Punjabi, being written by Muhammadans in Persian script and containing a large proportion of Persian and Arabic words.

Nearly one-third of the year's production is in poetical form, largely dealing with religious subjects. A national poem of some length by Dr. Shaikh Muhammad Iqbal and another called the Jawab-i-Shikwah are among the better class of Urdu works, while in Punjabi in the Persian character the best poems were "Bagh-o-Bahar," volume I, and two versified editions of the Ramayana. Miscellaneous works form 20 per cent. of the total and include books on moral subjects, social reform, domestic economy, hygiene and sericulture : also a descriptive account of the Delhi tombs by Muhammad Alam Shah.

Fifteen per cent. of the year's publications consists of prose works on religion,—a subject which is also extensively treated in poetry : much of it is controversial and reflects the prevalent diversity of faiths : translations of the classical languages used were numerous, and in almost all the vernaculars works were published to explain religious doctrines in the light of reason and science. Biography is generally crude and uncritical, but lives of Muhammad, Swami Ram Tirath and Raja Ram Mohan Roy are in good style and fairly comprehensive. The biographies of Tippu Sultan, Zeb-un-Nissa Begam (daughter of Aurangzeb), Prithvi Raj Chohan and Maharaja Ranjit Singh are in elegant Urdu, and full of historical interest.

The Urdu translation of Romesh Chandra Dutt's novel "Rajput Jiwan Sandhia" deals with battles fought by the Mewar Rajputs against the Mughal Kings, and two novels based on the Ramayana and Mahabharata are of unusual merit. There was a rise of eleven in the number of novels brought out during the year, mostly original works. Historical publications decreased slightly and most of them are text-books or epitomes ; the few readable books include "Mukhtsar Tarikhi-i-Punjab" by M. Firoz-ud-din and Thakar Ichhar Chand's Urdu translation of Pandit Kulhan's Sanskrit history of Kashmír. Among books on language are a series of Arabic Readers compiled in Syria and published at Delhi and a new Persian grammar written under the auspices of the Text-book Committee by Qazi Mir Ahmad Shah, all of which display novelty of method. Under the head of Law, a book on the customs of the Punjab by Mr. Badr-ud-din, Barrister, has been approved by the Chief Court : while of medical works, a valuable translation has been made by Lala Ram Kishen of Sir Bhagwant Singh's work on the history of the Aryan Science of medicine. Of the four books of travel, Sardar Muhammad Shahzad Mir Khan's account of 20 years' travel in Central Asia, China and Africa deserves mention, while two translations give in Urdu Burton's "Pilgrimage to Almedina and Mecca" and the accounts of ancient India by Megasthenes and other Greek travellers. The only philosophical work in English is Swami Ram Tirath's "In Woods of God Realization," three volumes, discussing Hindu Vedantism in the light of present-day Science. Books of a political character have almost disappeared, and this year only two such works were published, one in Punjabi on the blessings of British rule and one in Urdu, a translation of a Japanese work on the future of the British Empire.

56.—Literary Societies.

[*Vide* pages 196 and 197 of the Administration Report for the year 1911-12.]

57.—Arts and Sciences.

The Lahore Museum.

372. The number of visitors has more than doubled in the last five years and reached 389,743 during 1912-13, with a daily average of 1,110. The twelve purdah days recorded 5,523 or 1,997 more than last year, while on the Attendance.

Chiraghan Mela (March 31st) 6,331 persons passed the turnstile. The question of reserving a day for students is put forward by the Curator. There is no doubt that the public are rather inclined to treat the Museum as a playground, and that study is impossible so long as strict quietness is not maintained. Assistance is also required in improving some of the sections, notably the Zoological, and educated interest would be cultivated by the provision of student days.

Additions.

373. Few antiquities have been added, but the Superintendent of Hindu and Buddhist Monuments has supplied clay and *papier-maché* images of Sakyamuni and other deities of Tibet, and a few articles of copper and wood from the same region. A representative collection of Nepal brass work has been purchased. No special additions were made to the coin collection except 285 coins found and procured through the Treasure Trove Act; and a small collection of Mughal coins was purchased. Twenty-seven old pictures and drawings were bought, some of which are of great value for their fine workmanship and some for historical events, *e.g.*, one represents Raja Prithiraj piercing the Emperor Shahab-ud-din Ghori at his palace at Ghazni. The King-Emperor's tiger has been received from the taxidermists, and a special case is being designed for its display. Numerous gifts of birds and animals are annually received from the Zoological Gardens, which cannot be set up, as there is no taxidermist attached to the Museum. The collection of tanning materials has been added to, and Captain Rybot has presented a collection of fossils from the Kharian sandstone near Jhelum.

Work of the Museum.

374. The cataloguing of the coins by Mr. R. B. Whitehead, C. S., is nearing completion in England. That of the sculptures is still proceeding. Mr. S. M. Gupta has consented to classify a note on the Persian, Mughal and Kángra paintings. The Applied Art Section has also been re-arranged by the Curator, so that the process of manufacture is seen in the same cases as the finished article.

Finance.

375. The total expenditure during the year was Rs. 17,786, including a specially sanctioned charge of Rs. 8,250 on account of printing charges of the coin catalogues.

Lantern lectures.

376. The Society for Promoting Scientific Knowledge used the hall on five occasions, the expense being borne by the Museum. The Curator arranged 17 lectures, three of which, however, had to be postponed. The remainder were very much appreciated. They included two purdah lectures, and a series of four on Indian Art, the latter by Mr. S. M. Gupta. The attendance averaged 173. A new feature was the starting of lantern lectures in city centres, nine being delivered at Lahore and two at Jullundur. One hundred and twenty-seven sets of slides were borrowed, both inside and outside the Province, and 382 slides were added to the collection. The grant of Rs. 1,500 being insufficient to cover the year's expenses, Rs. 80 was charged to next year's lantern grant.

THE PRESS.

Newspapers.

377. The total number of English, Anglo-Vernacular and Vernacular newspapers published during the year 1912 was 256, of which 11 were Hindi, 25 Gurmukhi, 173 Urdu and 45 English. The corresponding number for the preceding year was 248. There was, however, a slight decrease in the average periodical circulation (obtained by combining the average circulations of all papers), the figure for 1912 being 280,272 as compared with 287,641 for 1911.

The large increase in circulation during 1911 was explained in last year's report as being partly due to the Coronation Darbar, and the termination of that function and its attendant stimulus to the sale of Punjab

periodicals more than accounts for the slight decrease during the year under review. The principal centres of publication were Lahore, Amritsar and Delhi. The Punjab capital was well ahead with 147: the other two cities claiming 32 and 31 respectively.

Circulation.

378. The principal Indian-owned papers published in English were the two Hindu organs, the *Tribune* (1,924) and the *Panjabee* (2,064), the two Muhammadan publications, the *Observer* (1,200) and the *Comrade* (2,900), and the Sikh organ of Amritsar, the *Khalsa Advocate* (700). The principal vernacular papers were the *Hindustan* (14,900), *Zamindar* (daily 12,000; weekly 6,573), *Sufi* (8,478), *Curzon Gazette* (7,313), *Paisa Akhbar* (weekly 7,296), *Fauji Akhbar* (6,000), *Watan* (5,093), *Vakil* (3,213), and *Parkash* (3,088), and the *Loyal Gazette* (2,058).

Executive action.

379. The total number of declarations under sections 4 and 5, Act XXV of 1867 reported during 1912 was 118, but the actual number is probably slightly higher. Security when taken ranged from Rs. 500 to Rs. 2,000, but in many cases no security was demanded. The only paper whose security was confiscated during the year was the "Punjab Advocate," the sum of Rs. 2,000 deposited by it in June 1911 was confiscated in July 1912, whereupon the paper ceased to exist. This was the first case in the Punjab necessitating the confiscation of security under the Press Act. No press prosecution took place during the year.

Warnings at the request of the Local Government were issued to the publishers of two papers only, *Arya Patrika* and the *Hindu*. The District Magistrate of Lahore also warned the proprietors of seven presses for neglecting to comply with the provisions of Act XXV of 1867, regarding the printing of the names of printer, publisher and place of publication on printed matter issued from their presses.

Foreign Politics.

380. Interest centred chiefly on the Wars in Tripoli and the Balkans. The Muhammadan Press was greatly perturbed at the defeats of the Turkish forces, and the extremist section were taken to task by the Hindu Press for their immoderate denunciations of European powers. A calmer attitude was adopted towards the end of the year by the Muslim newspapers.

Domestic.

381. Treatment of Indians in the Colonies, particularly in South Africa and Canada, received attention from all sections of the Press. As in the previous year, the *Jhatka-Halal* and kine-killing questions led to recrimination between the less responsible Hindu and Muhammadan papers, which also discussed with some heat the tribal raids into British territory. The better informed papers devoted themselves to the Nicholson Committee in which much interest was displayed.

Legislation.

382. The Bills before the Punjab Legislative Council came in for a considerable amount of criticism. The Land Alienation Act also continued to arouse the dis-satisfaction of the Hindu Press, and several Muhammadan papers discussed suggestions for the restriction of usury. Mr. Gokhale's Education Bill, the Life Assurance Societies Bill, Mr. Madge's and Mr. Dadabhoy's Bills for the suppression of vice, and the Punjab Tenancy Amendment Bill also received a certain amount of discussion.

Political organizations.

383. There was very little controversy during the year over Hindu and Muhammadan political movements. The *Tribune* noticed a tendency on the part of Muhammadans to aspire to some form of self-government, and looked forward to a time when the Muslim League would merge into the National Congress. Both communities showed little enthusiasm over their Provincial Leagues, towards which they adopted a critical attitude. The Hindu Press deplored the ineffectiveness of the Punjab Hindu Sabha and was in favour of the inception of an All-India Hindu League. The

Khalsa Advocate strongly urged the formation of a similar association for the protection of Sikh interests, arguing that failure to unite and co-operate incurred the risk of re-absorption into the Hindu community.

Educational.

384. The Muslim papers expressed much disappointment at the limitations imposed by Government as a condition of the grant of a charter to the Muhammadan University. The Hindu Press however did not display much enthusiasm over the proposed Hindu University. The Sikh organs discussed with much interest the Sikh Educational Conference.

The Durbar.

385. For some months after the Durbar the tone of the Press was more conciliatory and the transfer of the capital to Delhi was approved by all parties. The annulment of the Partition of Bengal was universally applauded by the Hindu papers, but the Muhammadan organs were full of forebodings, regarding the measure as a concession to Bengali agitation.

Miscellaneous.

386. As usual the Police attracted much criticism from all sections of the Press. There was also a remarkable unanimity on the principle of communal representation in the public services. The Muhammadan vernacular papers interested themselves in the hardships of pilgrims to the Haj, while the announcement of the appointment of a Public Services Commission received due attention from the principal Hindu Journals. Temporary interest was aroused by the Khan of Hoti case, which gave rise to much discussion of the action of the Frontier authorities.

CHAPTER VIII.

ARCHÆOLOGY.

Detailed information on the subject of this chapter will be found in the annual progress reports of the Superintendent, Hindu and Buddhist Monuments, Northern Circle, Lahore, and of the Superintendent, Muhammadan and British Monuments, Northern Circle, Agra, for the year ending 31st March 1913, also in the Administration Report of the Buildings and Roads Branch, Public Works Department, Punjab, for the year 1912-13.

58.—Archæology.

HINDU AND BUDDHIST MONUMENTS.

Notifications.

387. Only one monument was notified during the year, namely, the gateway in front of the temple of Malot in the Jhelum District.

Surveys and repairs.

388. The listing of the monuments of Kulu, Mandi and Suket was completed, and also of most of those of Kangra Proper. The lists were not, however, sent to the Press during the year under report. In Kangra Proper, among other objects of historical interest, a manuscript was acquired dealing with the history of the Rajas of Haripur near Goler: and the rock-cut temples of Masrur which are the only known specimens in the Punjab were surveyed. The sum of Rs. 1,011 only was spent on annual repairs of monuments. The failure to execute special repairs is due largely to the greater abundance of pre-Moslem remains in the Gangetic plain, but the want of a complete list of monuments in the Punjab, and of conservation notes on those already listed, renders it impossible to spend on Hindu and Buddhist monuments in the Punjab sums granted for that purpose.

Museums.

389. The cataloguing of the coins of the Lahore Museum and the Gandhara sculptures was continued by Mr. Whitehead, C. S., and Mr. Hargreaves, respectively.

EXPLORATION AT TAXILA.

Disposition of the site.

390. Only three months' excavation work was found possible at Taxila, but the results obtained were epoch-making in the true sense of the word. Dr. J. H. Marshall, C.I.E., the Director General of Archæology, is in charge of the work, and a rest-house has been built for him close to the site. The finds have been numerous and important, and were described by the Director-General in a lecture delivered at Simla in September before the Punjab Historical Society. The ruins of the three cities which lie beneath the mounds of Taxila, some 20 miles north-west of Rawalpindi, measure a dozen square miles, and their proper exploration will be a work of many years. The three areas are named (beginning from the south) Bir, Sir Kap, and Sir Sukh, and represent three successive capitals of Kings or Emperors from the 4th century B. C. to the 4th century A. D., namely, the Macedonian Alexander (326 B. C.), the Mauryans Chandra Gupta and Asoka, the Bactrian Diodotos, son-in-law of Antiochos the Great (190 B. C.), and his successors, the local Parthian Kings Maues, Azes, etc., (to 75 A. D.), and the Kushán Kings, including the celebrated Kanishka. Work was started at four points and the following paragraphs give a brief resumé of the antiquities discovered by these trial diggings.

The Chir Tope.

391. The Chir Tope on the south-east corner of the site had already been partially explored 50 years ago by Sir Alexander Cunningham, but newer methods and fuller knowledge have led to the discovery of the base of the main *stupa* and the remains of several small *stupas* of later date around it: also of still later gateways opposite the steps of the Great Tope and of a circle of small chapels, similar to those at Jamalgarhi on the North-West Frontier. Again other *stupas* and chapels were found built over these in another style. There are thus four styles of architecture at the Chir Tope, whose chronology covers a period of four hundred years from the days of the Parthians (2nd century B. C.) to those of the Kushán Kings. The Greeks, however, were the first builders at this site, for a collection of coins of a Greek King (all of a hitherto unknown type) were found under the Buddhist buildings. The Kushán coins were found *above* the Parthian remains, though some authorities have hitherto held that they flourished before the Parthian period. An apsidal temple (which is a rarity in India) was also laid bare, and several hundred specimens of Gandhara sculptures were found, of a manifestly late style, together with about 200 heads or figures in plaster or terra-cotta, including some life-size ... the only specimens of their kind in

Sir Kap site.

392. At Sir Kap a trench was dug across the site north and south, and was found to coincide almost exactly with a main street of the buried town. On the east side of the trench several large buildings were partially excavated, in two of which were shrines which had been erected about 50 B. C., the date being indicated by a stone relic casket which was found, enclosing one of gold and several precious stones, together with six coins of Azes I. These shrines are quite unique, the bases are well preserved and the upper structure of ornamental work was found lying about the court-yards. A third building dates from the 2nd century A.D., and below it were found rooms of Parthian construction, in which an ivory pendant of Hellenistic workmanship was picked up. In a still lower stratum were the remains of a building of the second century B. C. It seems to be established that Sir Kap was founded in the Greek period, and occupied by Parthian Kings and by Kozoulo-Kadphises, the Kushán. Later the capital was transferred to Sir Sukh and Sir Kap was probably given over to monks. No coins of Kanishka or his successors were found at Sir Kap, though the trench yielded 600 coins dating from Agathocles to Wema-Kadphises.

Jhandiala mounds.

393. At Jhandiala, half a mile northwards from Sir Kap, are two mounds the eastern of which yielded up the ruins of an imposing temple measuring 180 feet by 50 feet, and unlike anything hitherto known in India. The walls date from the 2nd century A. D., and there is every probability of rich finds awaiting the explorer in the artificial soil beneath the ruins. Two other smaller mounds further on were cleared, and disclosed two *stupas* of the Parthian epoch. The débris above these contained coins of Soter Megas, a name-[illegible] king contemporary with Wema-Kadphises; and in the spoil earth [illegible] by General Cunningham's diggers was found a small silver casket [illegible]ng one of gold with a relic bone inside.

Bir mound.

394. The investigation of Bir mound was very limited, but a small treasure was obtained in the shape of 160 punch-marked coins of debased silver, a very fine gold coin of Diodotos, gold and silver jewellery (two pieces being of exquisite workmanship) and a large number of precious stones. This treasure must have been hidden in the ground about 250 B. C., and there were also found some 50 vases in a well, dating from the Mauryan period. Below, however, is a large depth of artificial accumulation which will no doubt yield remains of a yet earlier civilization.

[illegible]eral re[illegible]

395. The result of the preliminary excavations is that the general disposition of the site has been settled, together with the ages of the several settlements in the city of Sir Kap, to which the settlements on the Bir mound have been found to be anterior, a number of monuments of the Parthian and Kushán epoch have been recovered, and a series of landmarks obtained, which were much needed for the history of architectural development. The prevailing spirit of the Parthian architecture has been shown to be Hellenistic, the Indian elements being subsidiary, and the Parthians must have played a prominent part in the diffusion of classical ideas in India, thus intimately affecting the evolution of early Indian art. It is also possible to determine the dates of other monuments found in the Punjab and on the Frontier, and the numerous sculptures discovered help to fix the chronology of the plastic arts. It is now known that the prevailing religion of the Parthian epoch was Buddhism which Kanishka can no longer be supposed to have established in the north-west of India. Clear evidence of the sequence of Greek, Parthian and Kushán dynasties has been obtained, and more and more interesting finds may be confidently expected in the near future.

British and Muhammadan Monuments.

396. Certain works in the Delhi Fort were completed at an outlay of Rs. 38,829, also the water-supply of the Hayat Bakhsh garden, as well as fencing the proposed extent of the garden. The improvements to the ground attached to Nur Jahan's tomb at Shahdara (Lahore) were carried out, and in Lahore the restoration of the façade of the Badshahi Mosque and improvements to the Hazuri Bagh were continued. The report of the Superintendent of British and Muhammadan monuments for 1912 had not been received when this volume went to Press.

CHAPTER IX.

MISCELLANEOUS.

59.—Educational Jurisdiction.

[For this section reference should be made to pages 201 to 207 of the Report for 1911-12.]

60.—Ecclesiastical.

397. During the year a grant of Rs. 910 was made by the Local Government to the Anglican Church at Khanspur (Murree Further Gallies) as compensation for sittings provided in the church for Church of England soldiers attending the services. Departmental charges amounting to Rs. 949, leviable on the private subscriptions to the building of an Anglican Church at Lyallpur, were remitted. At Subathu a proposal to convert the existing school into an unconsecrated church and to build a new school in its place at a cost of Rs. 14,493 was approved by the Government of India.

61.—Stationery.

398. The value of stationery issued by Stationery Department at Calcutta to offices in the Punjab during 1912-13 was Rs. 68,014 and to Presses Rs. 1,31,738, making a total of Rs. 1,99,752 for the year. T[illegible] of supplies to offices was below the allotment by Rs. 50,725, [illegible] Presses in excess by Rs. 10,138, resulting in a net saving of Rs. 40,587. [illegible] is reported to be due to the fact that many offices could not draw their annual supplies owing to a change of the indenting period ordered by the Government of India in the Commerce and Industry Department.

62.—Punjab Government Press.

399. The following statement compares the income and expenditure with the value of the work turned out during the years 1911-12 and 1912-13 :—

—	Income.	Expenditure.	Value of outturn.
	Rs.	Rs.	Rs.
1911-12	28,897	2,00,318	1,57,677
1912-13	27,279	2,13,892	1,56,459

The income which had been steadily increasing for four years has now decreased by over 5 per cent., while the expenditure has risen by more than six per cent., the value of the outturn declining by less than one per cent. The cost of work done by the contractors for Government Printing for departments and offices during the year amounted to Rs. 39,887 as against Rs. 49,247 last year.